The National Hockey League (NHL) Entry Draft: An Examination of the Impact of Brand Associations Attached to the Russian Hockey Players

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Abstract

This research was conducted to investigate whether negative brand associations attached to Russian hockey players impact their draft rankings during the National Hockey League (NHL) Entry Draft. A quantitative analysis based on various regression model specifications was used to test whether Russian players were drafted relatively equally to their counterparts in the NHL Entry Draft. The data consisted of the NHL draft picks between 1993 and 2013 and their performance statistics and physical characteristics. The results suggested that Russian players were drafted relatively equal to their counterparts from other countries. Meanwhile, Russian players who played in the CHL before the draft are actually drafted better than Canadians who played in the same league. Hence, the negative brand associations attached to Russians were unlikely to impact their draft rankings. This study redefined the so-called "Russian Factor" from a notion that allegedly damages Russian players' rankings to one that enhances their rankings.

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ACRONYMS

AMA = American Marketing Association

GM = General Manager

IIHF = International Ice Hockey Federation

KHL= Kontinental Hockey League

NHL = National Hockey League

RQ = Research Question

USSR = Union of Soviet Socialist Republics

RBV = Resource-Based View

CHAPTER 1: INTRODUCTION

Professional sport teams are big business. Fort (2003) suggested that most team owners from the North American professional leagues buy their teams as business investments. Notwithstanding the obvious media synergies, Rogers and Bell Canada's purchase of an 80% stake in Maple Leafs Sports and Entertainment (Toronto Maple Leafs, Toronto Raptors, and Toronto F.C.) in 2012 for $1.32 billion from the Ontario Teachers' Pension Plan (Allan, 2012), provides a sound example of a prudent investment. Today, the Toronto Maple Leafs franchise alone is worth approximately $1.3 billion. Further, this represents a 13% increase from last year's valuation of approximately $1.15 billion (Forbes, 2015a; The Associated Press, 2013). Another example of a sport team delivering sound returns as a business investment is Mark Cuban's Dallas Mavericks, which he bought for $285 million in 2000 (MacMahon, 2010). The team's current value is $1.15 billion representing an increase of approximately 400 percent (Forbes, 2015b). To be sure, Cuban's love of basketball is well documented (Lorek, 2013), but there is also "an undeniable business part of the investment" (Fort, 2003, p. 4). Indeed, the long-term appreciation in franchise value is a goal for most owners (Fort, 2003; Rosner & Shropshire, 2011; Senne, 2014). One way to assist in this capital appreciation and enhance franchise value is to produce winning teams.

A key component in building a winning team is to have high quality players who can contribute to the team's objective. For example, Sidney Crosby's efforts significantly contributed to winning the Stanley Cup for the Pittsburgh Penguins in 2009 (NHL.com, 2015a). Similarly, Wayne Gretzky's contributions to the Edmonton Oilers brought the team four Stanley Cups (NHL.com, 2015a). Examples of individual players contributing

to teams' success are plentiful. From a strictly business perspective, therefore, players are assets. For professional sport teams, acquiring these assets is an integral part of the business model. To be sure, player acquisition is a key component in building a winning team and maximizing revenue (Rosner & Shropshire, 2011). In the National Hockey League (NHL), there are two main systems that are used to acquire these playing assets – the reallocation and the allocation systems (Longley, 2003). Reallocation refers to the players who are already in the NHL and can be reallocated to another team (Longley, 2003). The reallocation system is more commonly known as trading. Teams trade players in order to acquire players with a better fit for the current built-in playing style and strategies of the team (Quirk & Fort, 1997). In contrast, where the reallocation system is primarily engaged with deals for professional players, the allocation system is concerned with the acquisition of amateur players who are stockpiled as assets through a mechanism called the Entry Draft (Longley, 2003).

In the NHL "players gain entrance by selection in an Entry Draft, whereby a team drafts the player, and obtains the player's rights to play in the associated league" (McCann, 2006 p. 1486). The Entry Draft is a characteristic of the North American sport system wherein "the team[s] with the worst record[s] draft first, and so on through to the team with the best record, which picks last in successive rounds" (Barros, Ibrah, & Szymanski, 2002, p. 39). Ostensibly, the draft is a tool to promote relative parity throughout the league in the long run. Fort (2003) noted that the draft system allows "the weakest teams [to] draft first, enabling them to have first shot at signing the best talent or (in some leagues) trade the rights to draft the best talent to other teams" (p. 228). To prevent situations where teams would be purposely losing in order to obtain first overall

ranked player, the NHL has introduced the draft lottery for the first round picks (Senne, 2014, p .104; Gerchak, Mausser, & Magazine, 1995). The lottery also uses "the weakest benefits the most" principle allowing the bottom 14 teams to have a chance in selecting first overall (Gerchak, Mausser, & Magazine, 1995). The weaker the team, the greater chance this team would have in winning the lottery. For example, the 2015 NHL Draft Lottery consisted of 14 teams (each having missed the playoffs for the 2014/15 season, thus representing the "weaker" teams in the league) with the odds of winning the right to select the first pick in the 2015 Entry Draft varying between 20% (for the 1st placed lottery team) and 1% for the (14th placed lottery team) team (NHL, 2014d). Similar to the reallocation system, the Entry Draft allows teams to gain competitive advantage by acquiring new players (Senne, 2014). The NHL Entry Draft that we see today, however, is not the same as it was 52 years ago.

NHL Draft History

The method of obtaining young players has changed since the inception of the NHL. Originally, NHL teams would scout young players and then try to sign them before any other team could do so (Longley, 2003). After the players were signed, they became a part of an amateur team sponsored by the NHL team (Longley, 2003). Longley (2003) defines this initial form of drafting as the sponsorship system. In the 1960s, the sponsorship system started to slowly lose its relevance (Hockeydb.com, 2014b). The NHL Entry Draft began in 1963 with four rounds involving 6 prospects who were not sponsored (Hockeydb.com, 2014a; Longley, 2003). Although 1963 was the first official draft in the NHL, many experts do not consider it to be the first "true" draft. The first "true" draft took place in 1969 when the NHL completely abolished the sponsorship

system; this move gave rise to the current method of drafting young players (Longley, 2003).

In 1985, the NHL put a supplemental draft in place after undrafted Adam Oates, who was over 21 years old, was able to negotiate a better salary than most NHL rookies (Hockeydb.com, 2014a). Oates' ability to negotiate a better contract caused the NHL management team to implement this "new" draft, specifically designed to allocate talented players who were over 21 years old, and had been overlooked in previous Entry Drafts. However, the supplemental draft ceased to exist in 1995 as a result of a new Collective Bargaining Agreement (Hockeydb.com, 2014b). Another form of draft, commonly known as the expansion draft, was developed at the first expansion of the NHL in 1967. As a result of this expansion the NHL added 6 additional teams including the St. Louis Blues, California Seals, Philadelphia Flyers, Minnesota North Stars, Pittsburgh Penguins, and Los Angeles Kings (Scherer & Cantelon, 2013; Hockeydb, 2014b). The expansion draft was used to provide the new NHL teams with players during the league's expansion time periods in 1967, 1970, 1972, 1974, 1991-1993, and 1998 - 2000 (Levine, 2011; Hockeydb, 2014b). At these drafts, the teams had to provide lists of protected players who could not be selected in the draft (Levine, 2011; Hockeydb, 2014b). Any team involved in the expansion draft was able to select any unprotected players during the expansion draft (Hockeydb.com, 2014b). Arguably, these various forms of draft helped to transform the NHL from the league consisting of the best North American players to the league consisting of the best players from around the world.

The Cosmopolitan Diversity in the NHL Draft

Although the first drafted European player, Orest Romashyna, was selected in 1963 during the first NHL Entry Draft, the early drafts heavily consisted of Canadian and American players (NHL.com, 2014b; IIHF.com, 2013). Ulf Sterner was the first European player who actually played in the NHL (IIHF.com, 2013). Although not drafted, he signed a contract with the New York Rangers after the 1964 Innsbruck Olympic Winter Games and made his debut in the NHL on January 27, 1965 (IIHF.com, 2013). By signing the contract, Sterner and the New York Rangers opened the doors for non-North American players to pursue careers in the NHL. The diversification process, however, was slow. Indeed, the NHL teams were reluctant to draft European and Union of Soviet Socialist Republics (USSR)/Russian players until the 1972 Summit Series between Canada and USSR (Stark, 2013). The surprising performance by the Soviet players allegedly earned them respect and made the NHL teams realize that there were many talented players across the ocean (Stark, 2013). This realization triggered the signing of Börje Salming in 1973. Salming was a Swedish defenseman who changed the NHL teams' perception regarding European players. He is one of the main reasons why European players are an integral part of the NHL today (Stark, 2013). Indeed, in the 2013 NHL Entry Draft there were 96 Canadian-born players and 57 American players and 58 non-North American players drafted by the NHL teams (Kreiser, 2013). There were 228 European players (23.7%) out of 962 hockey players who played at least one game during the 2009-2010 season (Thehockeynews.com, 2010). In 2013, approximately 30% of the NHL players were non-North American (NHL.com, 2014d). To be sure, these non-North American players are coming to the league and making strong contributions. For

example, players from outside of North America have served as team captains (i.e., Daniel Alfredsson, Erik Karrlson), led the league in goals scored (i.e., Alex Ovechkin, Alexander Mogilny), total assists (i.e., Evgeni Malkin, Henrik Sedin), and many other statistical categories (i.e., total points, wins and games played as a goaltender, total season plus/minus, etc.).

Clearly, the NHL has come a long way from its early days as a homogenous league populated by Canadian and American players. Today, players from Sweden, the Czech Republic, Finland and Russia can be readily found on the NHL team rosters (NHL.com, 2013a). However, while players like Salming and Sterner carved a path for their European brethren to play in the NHL from 1973 onwards, the nation that highlighted the quality of European talent in 1972, Russia, was much slower infiltrating the North American professional ranks.

Despite the surprising performance in the 1972 Summit Series, Russian players were not drafted into the NHL until 1988 when the Calgary Flames picked Sergey Pryakhin in the 12th round, 252 overall (Malamud, 2012). Prior to 1993 however, Russian/Soviet Union players were not able to easily leave the country because of the strict travel policy; therefore, the NHL teams were able to draft only very few of them (Mulamud, 2012; Federal Migration Services, 2014 [Федеральная Миграционная Служба, 2014]). The travel policy set extreme limitations on foreign travel by allowing the USSR citizens to leave the country only for political or diplomatic purposes (Adomanis, 2013). Soon after the Soviet Union collapsed and a new free travel policy was established in 1993, Russian players were able to leave the country without issues and freely play in the NHL (Federal Migration Services, 2014 [Федеральная

Миграционная Служба, 2014]). This changed policy led to numerous Russian players leaving their homeland and pursuing a career in the NHL including notable stars including Pavel Bure, Sergie Federov, Igor Larionov, Alex Mogilny, Slava Fetisov, and Sergei Makarov. (Malamud, 2012). The migration of these legendary players encouraged many Russian star players to play in the NHL including Evgeni Malkin, Alex Ovechkin and Ilya Kovalchuk. Certainly, it is a logical supposition that having star players such as these can help in building a winning team, which in turn can positively impact a team's profitability and value (Rosner & Schropshire, 2011).

Who Should the Teams Draft?

In some cases, star players have established themselves as the obvious selections, or as the best available players in their draft year. For example, Sidney Crosby heading into the draft was considered superior to his peers and was predicted as the first overall selection long before the draft (Whyno, 2014). Another example is Connor McDavid who was considered as the "Next One" heading into the 2015 draft (Whyno, 2014). However, beyond these early and obvious draft choices, General Managers (GMs) still have to select the best available players (Lavoie, 2003) through each of the rounds of the Entry Draft. The selections become trickier because of the complexity and vagueness of the conceptualization of the "best available player". According to Tingling, Masri & Martell (2011), there are many definitions of the best available player, which suggests that selecting a player is a "highly uncertain activity, being based on a large number of subjective parameters" (Lavoie, 2003, p. 388). For example, the Carolina Hurricanes and Edmonton Oilers, heading into 2013 NHL Entry Draft, were looking for a big forward and a defenseman who would "add the size" to the team and help in developing a more

physical playing style (Willis, 2013; Wescott, 2014). What is "best" for one team may, however, not be so for another. Nevertheless, it can be argued that certain perceptions regarding a particular player or group of players could influence GMs' draft-related decision-making. For example, Carolina or Edmonton had an opportunity to draft Valeri Nichushkin, a big-sized Russian forward; however, they passed on this pick. Eventually, Nichushkin was selected by the Dallas Stars, which made him only the 10th overall selection in the draft (Kennedy, 2013a). According to Kennedy (2013a) from the Hockey News, heading into the draft Nichushkin had been called a "top-three talent" by scouts. Kennedy (2013) suggested that one of the reasons for such a drop could have been Nichushkin's citizenship, which implies that nationality can affect players' NHL draft standings.

Perceptions of Players in the NHL Draft

Podnieks (2014) and Thompson (2010) have described Canadian hockey players as tough and defensive. In comparison, European hockey players have been perceived as being "offensive" and "team oriented" (Thompson, 2010, n.p.). The segregation of playing styles based upon players' nationality is frequently discussed in the hockey literature (Kennedy, 2013; Podnieks, 2014; Szemberg, 2006; Thompson, 2010). Indeed, Szemberg (2006) has suggested that every nation has a different style of play. Unlike Canadians, or Americans, who are generally described by GMs and the media in a positive manner, Russian players have been associated with negative perceptions. Don Maloney, a former NHL player and current GM of the Arizona Coyotes suggested that there are negative associations with Russian hockey players:

> Part of the problem is you never get them to buy in. There's always that little option that when you face some adversity, it's easier just to say 'nyet' and go in the other direction (Johnston, 2012, para 7).

This direction could be returning back home to play in the Russian professional hockey league, the Kontinental Hockey League (KHL), which is considered to be a viable option for players because of the comparable salaries and quality of hockey (Richardson, 2014; Christie and Lavoie, 2014; Johnston, 2012; Kennedy, 2013b; Lambert, 2012; Larin, 2010). For example, Alex Radulov, Victor Tikhonov, and Alexander Burmistrov were drafted in the NHL; however, after playing for a few seasons, each decided to return to the KHL (Belov, 2013; Cox, 2011). These kinds of moves are one of the major reasons why GMs may perceive Russians as players who lack the commitment to play in the NHL (Bourne, 2012; Wyshynski, 2012; Christie & Lavoie, 2014). Maloney also indicated that probably all managers in the NHL hesitate to draft Russian players (Johnston, 2012). It is possible therefore that this hesitation and the perceptions of Russian hockey players as less committed to the NHL, than players from other nationalities, could impact GMs' decision-making processes on the draft days.

Despite few Russian star players such as Alex Ovechkin or Ilya Kovalchuk, Russians have been generally viewed as quiet, loners, bad teammates, lazy, and selfish (Lambert, 2012). It is also possible that some GMs are concerned about the memorandum of understanding between the NHL and the KHL that encourages both leagues to respect the contracts made between the players and the teams within the leagues (KHL, 2015). This concern may potentially impact their decision of drafting Russian players with contracts in the Russian leagues. Interestingly, other international players, such as those

from Sweden and Finland have been drafted into the NHL and can also return home to play in their Swedish Hockey League (formerly known as Elitserien or Swedish Elite League) and Finnish Elite League (formerly known as SM-Liiga), respectively (SHL, 2013; hockeydb.com, 2014a). However, this issue of commitment to the NHL has not been discussed in the literature nor associated with these players at an anecdotal level. In contrast, anecdotal evidence is prevalent with respect to the negative perceptions surrounding Russian players; so much so that the media has coined a term to capture this negative imagery: "The Russian Factor." At least some of the hockey literature suggests that the "Russian Factor" is not a myth and this factor and the associated perceptions have led to a diminishing value for Russian players in the draft over the last decade (Piontkovskiy, 2012).

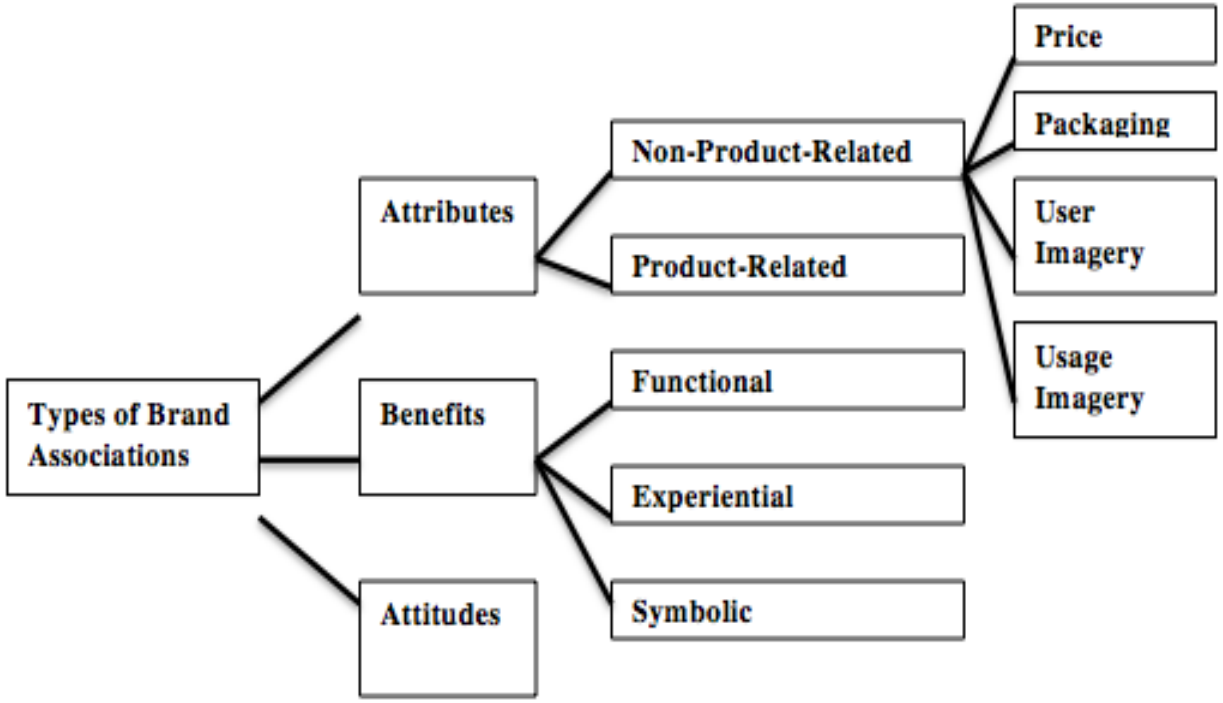
These negative perceptions can be examined through the brand management lens, given that brand is the cumulative perceptions associated with a product or service (Low & Lamb, 2000; Thakor & Lavack, 2003; Leclerc, Schmitt & Dube, 1994). One of the ways to view perceptions was advanced by Keller (1993, 1998) who suggested that perceptions about a brand are reflected by the brand associations held in consumers' memories. Under this lens, the Russian hockey players, similarly to other players, are assets with their own brand. This is because the brand is an idea in the consumers' minds (Blackston, 2000) and therefore can be applied to almost anything such as a "corporation, law firm, country, university, museum, hospital, celebrity, and even you in your career can be considered a brand" (Grimaldi, 2003, para 1). Indeed, if Russian players have their own brand, then this brand can be manifested through the ideas or associations connected

with Russian players. These associations can be viewed as brand associations attached to Russian hockey players brand.

Brand associations are part of the brand equity concept that was developed by Aaker (1991) and includes a combination of multiple brand parts including loyalty, awareness, perceived quality, and associations (Aaker, 1991; Berry, 2000, 1996; Keller, 1993, 2002; Yoo & Donthu, 2001). Aaker's (1991) seminal brand equity model triggered significant progress in the brand management literature including development in the brand association area. One of the important developments was Keller's (1993) Dimensions of Brand Knowledge model that included specific elements of brand association such as attributes, benefits, and attitudes (see Figure 1.1). Keller's model can be used to examine brand associations including those attached to Russian hockey players. This concept will be discussed in greater detail later in this thesis.

In light of the Russian Factor and the accompanied brand associations that potentially influence the NHL GMs' decision-making regarding Russian players in the Entry Draft, the purpose of this thesis is to statistically assess whether Russian hockey players' draft rankings in the NHL Entry Draft are relatively equal to comparable players from other countries. The examination involved NHL Entry Drafts over a 22-year time period from 1993 to 2013. This research follows Kennedy's (2013b) statement that the management of a hockey enterprise needs to ascertain whether to consider a Russian player as a potential selection in the NHL Entry Draft from the prospective players available.

Figure 1.1: Dimensions of Brand Knowledge. Keller's Model (1993).



Research Question (RQ): Are Russian hockey players drafted worse in the NHL Entry Draft relative to comparable players from other countries?

Hypothesis: Russian hockey players' draft rankings are worse than comparable players' from other countries because of the negative brand associations attached to Russian players.

To answer the RQ, this thesis utilized the data from a total of 3,159 players (excluding goalies) drafted over a 22-year period. A regression model was used to test for the cumulative average (mean) of the overall draft positions of Russian players relative to their counterparts, including different nationality groups such as the United States, Czech Republic, Finland, Slovakia, Sweden, and other nationalities as measured against Canadian players; the performance statistics of the players, including: points, penalty minutes, and games played; physical characteristics (height and/or weight); players' respective leagues during their draft selection; and finally, a subdivision of data involved only players drafted from the Canadian Hockey League (CHL).

There are very few studies that examined the Russian players' status in the NHL Entry Draft and whether these players are being undervalued in the NHL (Christie, 2010; Christie & Lavoie, 2014), which makes this study a valuable addition to the hockey literature. The results of this study could have practical implications by expanding understanding of GMs' drafting strategies. In addition, this study can help to reconcile whether the alleged Russian Factor, which drags the Russians' draft rankings down is a myth or a reality (Chesnokov, 2010). Understanding whether the Russian players are being drafted worse than relative comparable players from other countries in the NHL Entry Draft can assist GMs in developing their draft strategies.

CHAPTER 2: LITERATURE REVIEW

The brand concept has progressed from the simple definition of a "name, term, sign or symbol," (AMA, 1960, n. p.) to an intangible idea resonating within the minds of consumers (Blackston, 2000). Despite many studies that have looked at the concept of brand, (Aaker, 1991, 1996; Berry, 2000; Kapferer, 2008; Keller, 1993, 2002; Lee and Leh 2011; Williams, 2014; Yoo & Donthu, 2001) there is still confusion as to what the term brand actually encompasses. The goal of this chapter is to remove this confusion by reviewing and synthesizing relevant literature related to the concept of brand. Next, the concept of brand equity will be discussed followed by a discussion focused specifically on brand associations, which is one of the main dimensions within the theory of brand equity. Finally, the concept of brand associations will be discussed in the specific context of sport and individual athletes.

Brand

The origin of brand can be traced back to 3000 B.C., when the ancient Egyptians used to brand the walls of tombs with labels proclaiming that the tomb contained the "finest oil of Tjehenu" (Mortimer, 2008, p. 14). The oldest generic brand that still remains in use is "the herbal paste known as Chyawanprash" (Supriya, Vasudha, & Yadav, 2014, p. 411). This brand originated during the Vedic period between 1100 B.C.E. and 500 B.C.E. (Supriya et al., 2014). Later, in the 13th century, Italians used brands in the form of watermarks on paper (Supriya et al., 2014). The notion of brand can also be seen in farming, where farmers branded their cattle in order to distinguish them (Mariotti, 1999; Maverick, 1942). Similarly, distillers used to brand their whisky in order to mark their specific type (Farquhar, 1990) and influence consumers' choice (Blackett,

2004). The original utility of brand was to identify and differentiate. This purpose continued over the centuries as brand has persistently been used as a tool that has aided to differentiate and influence consumers' decision-making in the marketplace (D'Alessandro, 2001; Knapp, 2000; Romaniuk & Nenycz-Thiel, 2013; Sharp, 2000; Schiffman, 2005).

Brand was introduced to the world of mass-marketing in the 19th century with the advent of packaged goods (Supriya et al., 2014). Managers of the factories that were established during the industrial revolution started to realize that plain packaging of goods would not allow them to compete with the local manufacturers. As a result, they decided to implement brand strategies such as specific packaging and recognizable logos (Supriya et al., 2014). However, the concept of brand was not used widely until the late 19th and early 20th century (Blacklett, 2004). Then in 1960, the American Marketing Association (AMA) formally defined brand as a "name, term, sign, symbol, or design or a combination of them intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competitors" (n. p.). Today, brand encompasses more than just a name, term, sign or symbol. Brand has evolved into an intangible concept whereby a brand is viewed from a holistic perspective that is understood and measured through the brand equity construct (Aaker, 1991; Lee and Leh, 2011; Williams, 2014).

Brand Equity

The concept of brand equity has been examined in the mainstream management literature since the early 1990s (Aaker, 1991; Aaker, 1996; Berry, 2000; Kapferer, 2008; Keller, 1993, 2002; Lee and Leh 2011; Williams, 2014; Yoo & Donthu, 2001). There

have been many proposed definitions of brand equity. The landmark definition, however, belongs to Aaker (1991) who defined brand equity as a "set of assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service to a firm and/or to that firm's customers" (p. 15). Aaker's view of brand equity continues to hold favour among scholars (Berry, 2000; Kapferer, 2008; Keller, 1993, 2002; Lee and Leh 2011; Williams, 2014; Yoo & Donthu, 2001).

It is important to understand that brand equity can be both positive and/or negative. Aaker (1991) stated that the brand equity can "add to or subtract from the value" of a product or service. This is because a brand can closely connect to the emotional responses of consumers and the personal ties a customer has to the product or service (Lee & Leh, 2011). Chard (2007) suggested, "it is the emotional evocations and associations, as perceived by consumers, from a brand's individual parts that contribute to the brand's overall quality" (p. 16). This suggests that brand resides in the consumer's mind and influences their choice by triggering their emotions. In order to enhance understanding of brand equity, Aaker (1991) developed a brand equity model that is based on four integral components: brand awareness, brand loyalty, perceived quality, and brand associations (see Figure 2.1). His model gained prominence and has been cited within a number of studies (Berry, 2000; Keller, 1993, 2002; Ross, James, & Vargas, 2006; Yoo & Donthu 2001). Each component of the model will now be discussed.

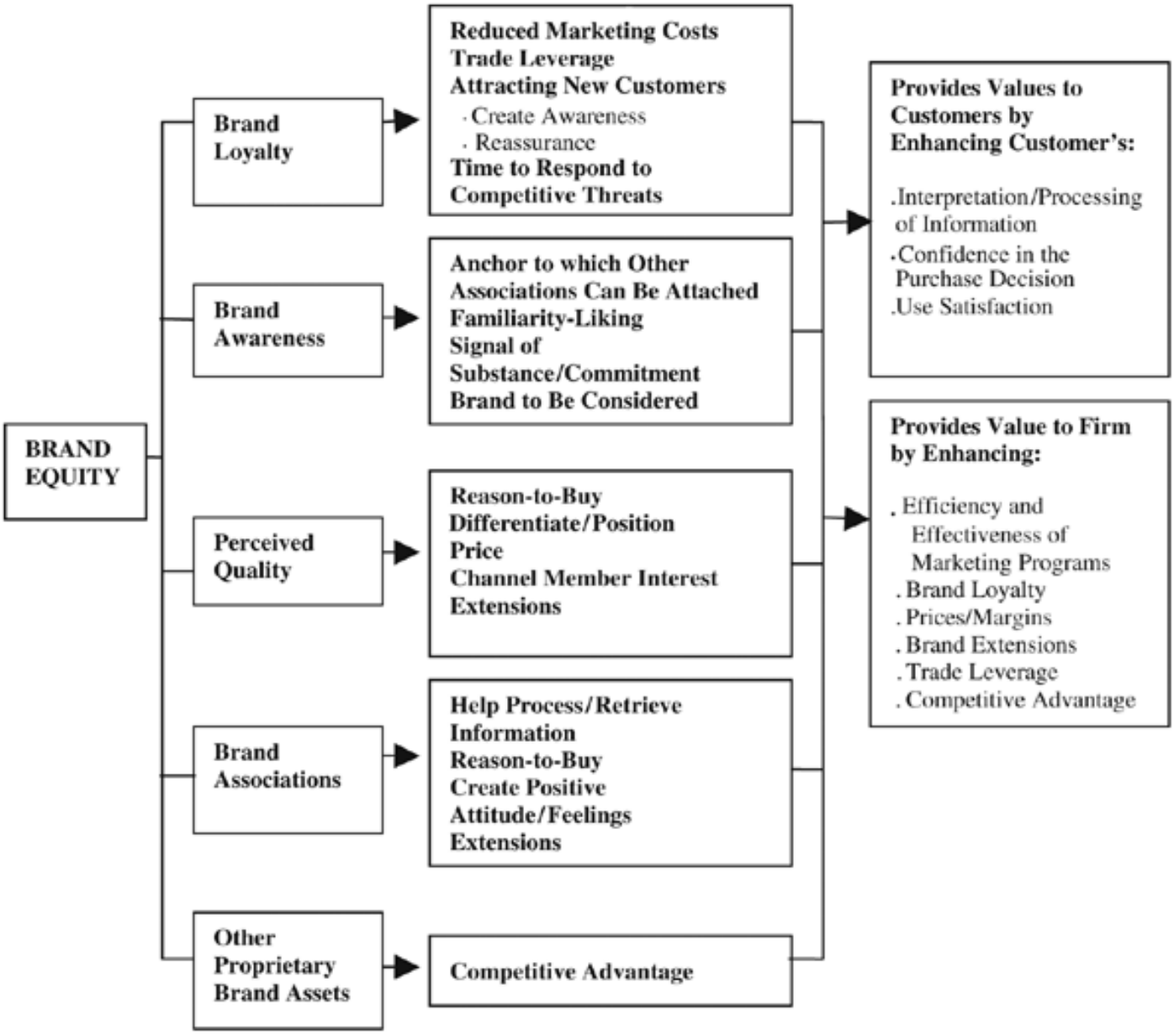
Brand awareness is defined as customers' ability to recall and recognize a brand (Keller, 2003). Berry (2000) held that brand awareness depended on how well organizations presented their brands. It was noted that the development of a memorable

image, name, and logo directly contributed to the enhancement of brand awareness amongst consumers (Brodie, Whittome, & Brush, 2009).

Brand loyalty has been referred to as a customer's commitment to buy or use the same brand which can be shown by reoccurring purchase or use of the brand (Walla, Brenner & Koller, 2011). Brand loyalty can be viewed from two dimensions: attitudinal loyalty and behavioral loyalty (Baldinger & Rubinson, 1996). Attitude refers to brand preference and commitment that are affective and cognitive aspects of brand loyalty (Gremler & Brown, 1998). On the other hand, behavioural loyalty is reflected in the repeat purchasing of a brand in the marketplace where other brands are available (East 1997).

Next, perceived quality can be described as "the consumer's judgment about a product's overall excellence or superiority" (Aaker & Biel, 2013, p. 144). The perceived quality component of brand equity is an element that can affect consumers' perceptions or image of a brand directly or indirectly through perceived value or brand attitude (Aaker & Biel, 2013). Both perceived value and brand attitude are developed through gaining knowledge about the brand (Sweeney, 2001; Walla, Brenner, & Koller, 2011). For example, this learning can happen through receiving an experiential service such as an excellent vacation trip or participating in various events associated with a certain company that is promoting their brand. The final component of brand equity is brand associations, which are noted as one of the "key building blocks" (Sonnier & Ainslie, 2011, p. 518). Understanding consumers' brand associations is necessary for assessing the brand equity (Milne & McDonald, 1999). Indeed, according to Ross, James and Vargas (2006), "the next step in the study of brand equity should focus on developing thorough understandings of the specific elements contributing to the construct.

Figure 2.1: Aaker's Brand Equity Model. Aaker (1991).



One element, and possibly the most important, that should be examined is brand associations" (p. 261). This element is the key focus of the current research and as such will be discussed in detail next.

Brand Associations

Ranijbarian, Abdollahi and Khorsandnejad (2011) argued that "brand associations are central to brand equity" (p. 230). Researchers have suggested that brand associations generally create an image in consumers' minds in relation to a particular product or service (Aaker, 1991, Kapferer, 1997; Keller, 1998; Ross, James, & Vargas, 2006; Sonnier & Ainslie, 2011). These images are perceptions that can significantly impact the decision-making process (Davis & Dunn, 2002; Lloyd, 2002). Brand associations can be viewed as a reflection of brand knowledge (Keller, 1993; French & Smith, 2013). French and Smith (2013) suggested that brand associations stimulate recall of other brand associations through the memory's activation process. This activation process is tied to the consumers' knowledge about the brand. Consumers have to have at least some brand knowledge in order for this memory activation process to recall brand associations attached to the brand. The stronger the brand, the more knowledge consumers have about that brand, and therefore more associations are generated regarding the brand (French and Smith, 2013). Berry and Lampo (2004), as well as Phan and Ghantous (2013), hold that brand associations are derived from consumers' experiences with a service or product and overall perception(s). Formed through experiences, brand associations can affect consumers' propensity to acquire a product (Christodoulides & de Chernatony, 2010; Keller, 2003).

One of the most comprehensive frameworks for understanding brand associations belongs to Keller (1993). Gladden and Funk (2002) endorsed Keller's customer-based brand equity model calling it "the most complete" (p. 57). In this model, brand associations are classified into three different abstract categories: attributes, benefits and attitudes (Keller, 1993). Attributes are referred to "those descriptive features that characterize a product or service" (Keller, 1993, p. 4). In other words, attributes are what consumers think the product or service encompasses. Benefits, on the other hand, are referred to as the "personal value consumers attach to the product or service attributes" (Keller, 1993, p. 4). Finally, attitudes refer to "the overall evaluations of a brand" (Keller, 1993, p. 4). These different categories of brand associations make up the brand image that consumers store in their memories, which is recalled upon making a consumption decision.

The progress in research related to brand associations has made the concept applicable to every industry and context, including sport. Since Keller's study in 1993, there have been many studies examining brand associations in the sport context. The next section provides a review of literature related to brand associations in the sport context.

Brand Associations in Sport

There are many studies that have examined the concept of brand associations in the context of sport (Arai, Ko, & Ross, 2014; Anderson, 2007; Gladden, Irwin, & Sutton, 2001; Ross, Bang, & Lee, 2007; Ross, James, & Vargas, 2006; Walsh & Ross, 2010). Perhaps this is the case because multiple researchers agree that brand associations are one of the most important dimensions of brand equity (Aaker, 1991, 1996; Keller, 1993; Ross, James, & Vargas, 2006; Ranijbarian, Abdollahi, & Khorsandnejad, 2011; Sonnier

& Ainslie, 2011). Some of the developments in the area of brand associations include a study by Walsh and Ross (2010) that examined brand associations based on the impact of brand extensions by professional sport teams. Also, both studies by Ross et al. (2007) and Ross et al. (2006) focused on testing the validity and advanced team brand scale or models on sport and brand associations. Meanwhile, Ross et al. (2006) focused their research on the development and validity testing of a new Team Brand Association Model to measure team brand equity.

These studies suggest that scholars have developed a good understanding of the brand association concept. There is, however, a paucity of studies that have focused on brand associations attached to a group of athletes (Ross et al., 2007; Ross, Walsh & Maxwell, 2009; Ross et al., 2006). This focus can be identified as being in the early stages of research and this thesis study aims, in part, to develop a more robust body of literature in this area. For example, related to this specific investigation, it is the author's contention that brand associations related to specific players, or more so groups of players, may influence GMs when making drafting decisions.

Aaker (1991) noted that brand associations are linked to the meaning of the brand. Keller (1993) noted that brand associations are the "information nodes linked to the brand node in memory and contain the meaning of the brand for consumers" (p. 3). This suggests that brand associations are stored in the GMs' minds and aid in developing GMs' perceptions regarding a player or group of players. These perceptions can be formed regarding players' hockey-related skills (Johnston, 2012; Kelly 2013; Kennedy, 2013b; Podnieks, 2014). However, it seems that they can also be formed regarding players' qualities that are distant from their on-ice performance, such as nationality, since

many GMs associate Russian players with the Russian Factor (Johnston, 2012; Kelly 2013). This concept of brand associations influencing GM's decision making will be explored further below.

Ross et al. (2006) argued that brand associations are the immediate thought after a brand is recalled and indicated that these "associations can take on a variety of forms, including tangible, functional associations, and intangible, experiential associations" (p. 262). Therefore, it is possible that GMs' negative perceptions, formed through the particular brand associations attached to Russian hockey players, could influence draft choices. This further suggests that some of the GMs' decisions could have been made on the subconscious or emotional level and were influenced by the negative or positive brand associations attached to a player. This view is supported by Krishnan (1996) and Ross et al. (2006) who noted that brand associations stem from the emotional perceptions that are attached to specific brands. Additionally, Ross et al. (2006) promoted that "these perceptions, in turn, contribute to the meaning of the brand for consumers" (p. 262). This link to emotionally induced perceptions will be discussed further in the Attitudes section below.

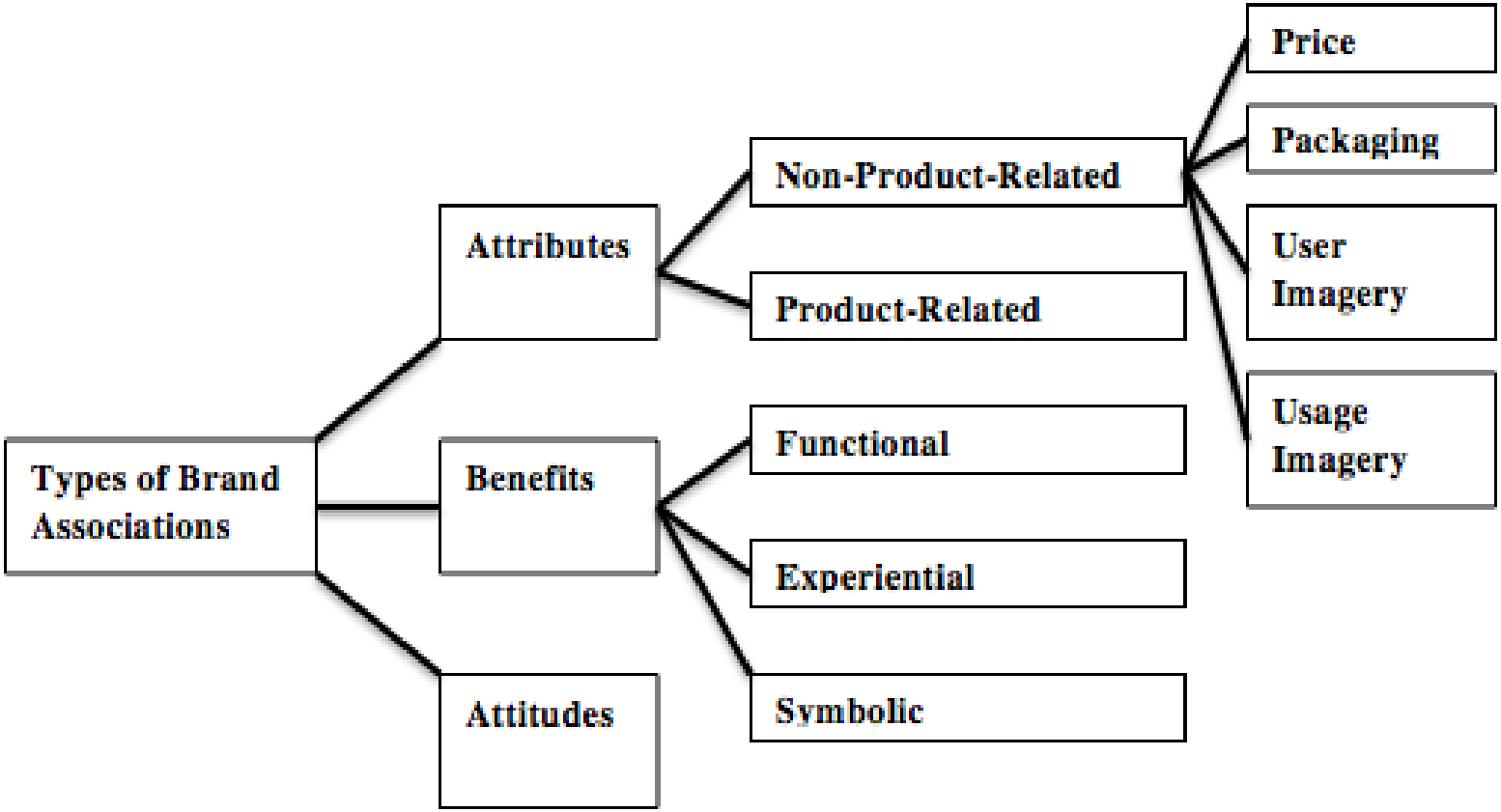
Batey (2008) also concurred with other researchers regarding the emotional impact of brand associations by indicating that consumers could have mental perceptions with respect to a particular brand. In this thesis, this concept implies that the NHL GMs and their brand associations related to a Russian hockey player, or several players, can be applied to all Russian players. These brand associations attached to the Russian hockey players can potentially influence GMs' drafting decision-making processes regarding Russian players.

There are multiple ways in which brand associations can be derived. Ross et al. (2006) indicated that consumers form their perception of a brand through various sources including, but not limited to, personal experience. This thesis research followed Keller's (1993) position that there are three different types of brand associations (see Figure 2.2). These types included: attributes, benefits, and attitudes. Attributes are related to the descriptive features that categorize brand, benefits are the values that consumers attach to the attributes, and attitudes are consumers' overall perceptions of a brand. Each of these brand association types will now be examined.

Attributes

Keller (1993) segregated the attributes type of brand associations into two different categories: product-related attributes and non-product-related attributes. The product-related attributes are defined as the "ingredients necessary for performing the product or service function sought by consumers" (p. 4). In the context of this study, the necessary ingredients are derived from players in the form of their hockey skills; it is the GMs who seek players with the necessary ingredients for their team. From the available literature, it is unclear as to what constitutes the "necessary ingredients;" however, what is clear is that GMs are looking for players who are committed, hard-working and with strong character (Klein, 2011). In other words, GMs are looking for someone who can be turned into the integral assets for their teams' future success. These assets are used to produce a winning team, which would likely help in maximizing the revenue. Having a star player likely contributes to both of these objectives (Gladden & Funk, 2002). A star player on a team can be a factor in increased attendance rates (Gotthelf, 1999; Gladden &

Figure 2.2: Keller's Model Dimensions of Brand Knowledge.



Funk, 2002; King, 1998, 1999). A star draftee in many cases is much superior to his peers and ready to play in the NHL from the very first year Therefore, it is possible that the negative brand associations attached to his nationality would likely have a minimal or no impact on the draft ranking. For example, the negative brand associations attached to Russian players did not impact Ilya Kovalchuk, Alex Ovechkin and Nail Yakupov, who were the top selections in 2001, 2004, and 2012 respectively (NHL, 2015a). Yet, negative brand associations attached to certain nationalities would probably affect the non-star players, since perceptions derived through brand associations can influence the purchase decisions (Aaker, 1991; Nedungadi, 1990; Romaniuk, 2003; Romaniuk & Nenycz-Thiel, 2013). Romaniuk and Nenycz-Thiel (2013) support this viewpoint by establishing a correlation between the strength of a brand in terms of its brand associations and consumers' buying behaviours.

Non-product-related attributes are defined as "external aspects of the product or service that relate to its purchase or consumption" (Keller, 1993, p. 4). Here, Gladden and Funk (2002) developed four non-product-related attributes within the team sport setting that included: logo design, stadium/arena, product delivery and tradition. The logo design was previously noted as playing a significant role in the development of brand associations (Aaker, 1991; Keller, 1998). Also, Biehal and Sheinin (1998) proposed that brand equity could be strengthened through the retrieval of positive brand associations with the use of a logo or corporate marks.

Gladden and Funk (2002) indicated that a team's winning tradition could be one of the non-product-related attributes that can influence the production of brand associations in the consumers' or fans' minds. The non-product-related attribute of

tradition can be associated with a team's performance and can be a strong contributor to brand associations. If these attributes can be associated with a team's performance, then it possible that they can be also associated with a group of athletes' united under the same nationality. For example, a tradition related to the past history of successful performances by Russian players in the NHL could positively contribute to the brand of the Russian players and their team. Gladden and Funk (2002) suggested that tradition could also be created outside of the game performance sphere. Kolbe and James (2000) proposed that tradition could include a style of play that is or was associated with a particular team or group of players.

Benefits

Keller (1993) described benefits as "the personal value consumers attach to the product or service attributes" (p. 4). In other words, it is what consumers believe the product or service could do for them. In this thesis, benefits are concerned with what NHL GMs think a Russian hockey player could do for their team. Keller viewed benefits in terms of three categories: functional needs, symbolic needs, and experiential needs. Functional needs motivate consumers to purchase products that could solve consumption-related problems (Gladden & Funk, 2002; Park, Jaworski, & MacInnis, 1986). Symbolic needs are referred to as fulfilling "internally generated needs for self-enhancement, role position, group membership, or ego-identification" (Park et al., 1986, p. 136). Finally, experiential needs are those that motivate consumers to purchase products that provide sensory pleasure, variety, and/or cognitive stimulation (Park et al., 1986).

Specifically considering the sport context, Gladden and Funk (2002) furthered Keller's work and identified peer group acceptance as a benefit provided in team sport.

Gladden and Funk (2002), referring to the study by Wakefield (1995), proposed that if a sport consumer felt that peers approved of his or her following of a specific team, all of the elements of the consumption experience would be viewed more favourably. This observation suggests that the opinions of others can influence brand associations that are developing within the minds of sport consumers. This suggests that it is possible that GMs' perceptions and decisions are influenced by the opinions of scouts, media and other GMs. Indeed, GMs and scouts are not isolated from other GMs and scouts and it would not be a surprise if they share their thoughts about particular players directly with other scouts or GMs. In addition, they often share views about players through media sources, which can also impact GMs' brand associations of the Russian players' brand.

A study by Huh, Vosgerau and Morewedge (2014) proposed that consumers' decisions are subject to "social defaults." These defaults suggest that consumers more often than not mimic the behaviour of other consumers without even realizing it (Huh et al., 2014). Literature related to the social influence on consumers showed that consumers conform to the behaviour of others as a result of deliberative processes (see Bearden & Etzel, 1982; Campbell & Fairey, 1989; Childers & Rao 1992; Cialdini, 2001). This concept can be applied to the NHL GMs. It is possible that the GMs merely mimic one another's behaviour when it comes to drafting players. This study revisits the concept of social influence on a consumer's decision-making in the theoretical constructs section found later in this chapter.

Attitudes

Brand attitudes are defined as consumers' overall evaluation of a brand and are often dependent upon the strength and favourability of the benefits and attributes offered

by the brand (Ross et al., 2006; Keller, 1993; Wilkie, 1986). This suggests that GMs' emotions and knowledge regarding Russian players can be represented in their attitudes toward these players. Brenner and Koller (2011) associated the concept of brand attitudes with the customers' emotions and the knowledge developed when experiencing a company's products and services. Gladden and Funk (2002) proposed that subjective beliefs play an important role in forming a specific attitude towards an object. Attitude represents a person's overall perception including its relevance and importance from the emotional perspective (Funk, 2001; Gladden & Funk, 2002; Krosnick, 1988).

Studies by Walla, Brenner and Koller (2011), Low and Lamb (2000), along with Thompson, Rindfleisch, and Arsel (2006) have indicated that brand attitudes are strongly tied to emotions; consequently, in order to enhance brand attitudes, a company must trigger each customer's prefrontal cortex (the part of the brain that is involved in processing emotion-related information) using images and words. Park, MacInnis, Priester, Eisingerich and Iacobucci (2010) indicated that there was also a brand attitude valence that they defined as "the degree of positivity or negativity with which an attitude object (in the current context, a brand) is evaluated" (p. 1). These authors conceptualized the strength of brand attitude as "the positivity or negativity (valence) of an attitude weighted by the confidence or certainty with which it is held" (p.1). Overall, brand attitude is a reflection of a general opinion about a brand in the consumers' minds (French & Smith, 2013; Park et al., 2010).

These different categories of brand associations can influence consumers by creating an image in their minds about a particular brand (Davis & Dunn, 2002; Lloyd, 2002). Next, it is important to fully comprehend how brand and the attached brand

associations can impact GMs' decision-making in the context of this research. This chapter will now delve into a discussion regarding consumers and their decision-making processes.

Decision-Making

A number of studies suggest that consumers' decision-making is driven by their emotions, which can be stimulated by a brand and brand associations (Hwang & Kandampully, 2012; Isen & Geva, 1987; Kuvaas & Kaufmann, 2004; Lin, Yen, & Chuang, 2006; Mano, 1992, 1994; Supphellen, 2000). Indeed, brand associations are viewed as "emotional impressions" (Supphellen, 2000, p. 322) that are stored in the consumers' memories and attended only on a subconscious level (Supphellen, 2000; Plutchik, 1993). These emotional impressions, regardless of whether they are negative or positive, can influence consumers' minds on a subconscious level to purchase or not to purchase certain brands (Granot, Green, & Brashear, 2010). Purchasers, however, still try to "explain their consumer behaviour with rational arguments rather than call on their subconscious, emotional impulses" (Granot et al., 2010, p. 802). Consumers are more likely to choose a brand with positive brand associations (or emotional impressions) than a brand with neutral or negative brand associations. A positive emotional response is, therefore, interdependent with positive brand associations and a negative emotional response is interdependent with negative brand associations (Granot et al., 2010). It is possible, thus, that brand and its attached associations can influence one's decision-making to choose or avoid certain brands. These associations, however, do not last forever and can change over time as consumers learn more about the brand (Ross, Walsh, & Maxwell, 2009). One's direct experience impacts familiarity with a brand and,

therefore, impacts one's brand associations tied to it (Funk & James, 2001). This implies that just because consumers do not purchase a particular brand now, does not mean that they will never purchase it in the future. Indeed, brand selection may be an iterative process. The iterative process is complex as it involves consumers' psychological characterization of multiple previous experiences associated with a particular brand (Brodie, Ilic, Juric, & Hollebeek, 2013)

In the NHL, an application of the concepts discussed above could mean that GMs' decision-making have been heavily based on their emotional responses. Deaner, Lowen, and Cobley (2013) indicated that GMs' decision-making is commonly based on "the player's ability to make a net contribution to their team." However, this rationale is very vague and can encompass a variety of arbitrary and subjective contributing factors (Lavoie, 2003). Hockey literature identifies some of these factors such as age (Deaner et al., 2013), ethnicity (Lavoie, 2003), or nationality (Christie & Lavoie, 2014; Simon, 2011). Despite many suppositions that attempt to explain GMs' drafting decisions, it is still unclear as to how they select certain players. Therefore, it could be true that they are driven by their subconscious emotions rather than conscious reason, which is akin to the view of Granot et al. (2000) presented above. It is possible that GMs' decisions are driven by their emotional responses through brand associations attached to certain players. Hence, it is possible that negative brand associations attached to Russian hockey players influence GMs to undervalue the Russians in the draft. Despite the subjectivity and emotional component of drafting decisions, the motive behind most, if not all, of the decisions is to acquire a resource/asset that will help to build a winning team and

maximize revenue (Rosner & Shropshire, 2011). This view is akin to the Resource-Based View (RBV).

Resource-Based View

This RBV posits that organizational performance does not depend solely on the "resource endowment," but also on the "efficiency with which the resource endowment is used" (Gerrard, 2005, p. 143). The core assumption of the RBV theory is that a company's internal resources, that are deemed to be unique and specific, determine the company's success (Holtbrugge, Friedmann, & Puck, 2010). The RBV gained popularity in a variety of research fields such as strategic management (Szymaniec-Mlicka, 2014), environmental sustainability (Barney & Clark, 2007; Boyne & Meier, 2009), marketing (Wu, Yeniyurt, Kim, & Cavusgil, 2006), and human resource management (Wright, Dunford, & Snell, 2001). The RBV has become one of the most commonly applied theories in human resource management studies (McMahan, Virick, & Wright, 1999; Holtbrugge et al., 2010) and Purcell & Kinnie (2007) even called the approach "the HRM Holy Grail" (p. 533).

The prominence of the RBV also led to its application in the sport management field. Smart and Wolfe (2000) adopted the RBV in order to explain the success of Pennsylvania State University's football program by focusing on the unique historical and cultural attributes of the coaching resources. Mauws, Mason, and Foster (2003) used the RBV to investigate whether a professional sport franchise (PSF) can provide owners or franchisees with a long-term competitive advantage. The term PSF was referred to as the relationship between the franchiser (the league or league representative) and the franchisees (sport franchise owners). The study found that the PSFs have the potential of

being strategic resources because the PSFs can generate economic rent and create a competitive advantage.

From the RBV perspective, both the quality and quantity of the resources can be used to explain superior organizational performance (Gerrard, 2005). Gerrard proposed that two aspects of organizational effectiveness were allocative efficiency and technical efficiency. The first one refers to the complex structure of the organization with the potential trade-offs between different areas of organizational performance. For example, organizations can trade their potential profit for a better on-ice performance. The second aspect refers to achieving the best results with the acquired resources that are currently available for use. In the context of the NHL, the draft is viewed as one of the mediums for acquiring integral NHL franchises' resources – players. Since players are the assets as it was demonstrated in Chapter 1, they can equally be considered as resources, by definition (Sullivan & Sheffrin, 2003). In addition, since the RBV application encompasses the human resource management area where humans are viewed as necessary resources that help organizations to achieve their its goals (Wright, Smart, & McMahan, 1995), it is not illogical to view hockey players as the resources of the NHL franchises.

In this case, the GMs' strategy is to select the most effective player that can contribute to the team. Despite this reasonable strategy, however, it is possible that the brand associations attached to hockey players have influenced GMs' decisions. Consequently, the RBV underscores this research based on hockey players and their value as a resource at the time of the NHL Entry Draft. Another theory that can help to understand the GMs' decision-making process is Social Learning Theory.

Social Learning Theory

Social learning theory "suggests that individual behaviour is determined by both the environment and a person's motivation to learn proactively from important social referents" (Lam, Kraus, & Ahearne, 2010, p. 61). For decades it has been reported that in the process of socializing, individuals' learning can be influenced (Churchill & Moschis, 1979; Moschis & Churchill, 1978). The agents of influence can stem from multiple sources such as family members, peers (Lee, Salmon & Pael, 2013), the mass media (Lamberson, 2010; Lee, Salmon & Paek, 2013; O'Rorke, 2006), and even one's previous experiences (Sincero, 2011).

In the course of making a decision in relation to an unknown product or service, consumers generally turn to their friends and acquaintances for relevant information about a product or service (Jackson, 2008; Lamberson, 2010). Much literature related to social theory or social learning theory explains such behaviour. According to Young (2009) and Lamberson (2010), social learning theory is one of the most plausible theories because it has "firm decision-theoretic foundations: agents are assumed to make rational use of information generated in order to reach a decision" (Lamberson, 2010, p. 4). Social learning theory within the context of consumerism is defined as involving the acquisition of "skills, knowledge, and attitudes relevant to their functioning as consumers in the marketplace" (Ward, 1974, p. 2). Lee et al. (2013), along with Brim (1998), indicated that the socializing process is continuous throughout one's lifetime (Lee et al., 2013). In other words, socialization experienced earlier in one's life is "not enough to fulfill the demands of the later years" (Brim, 1968, p. 184). This theory can be reflected in the GMs' decision-making process. For the purpose of this study, friends and

acquaintances of the GMs are other GMs, scouts and hockey analysts. Socialization with these friends and acquaintances could have an impact on the GMs' decision-making processes. For example, those GMs, scouts, or agents who have had bad experiences with the Russian players may share this information with other GMs directly (through direct conversation) or indirectly (through media, i.e., interviews). This information sharing can influence GMs' brand associations and, consequently, their decision-making. Throughout the socializing process, there are "decision-theoretic foundations" (Lamberson, 2010, p. 36). In this thesis, social theory can underscore decision-making. This means that GMs can have their brand associations concerning a player, or groups of players, influenced based on social agents that can include other GMs. It is possible that these external influences played a role in creating bias in the GMs' drafting decision-making process where certain features such as age, ethnicity or nationality can become deciding factors.

Biased Drafting in the NHL

There has been limited research on the acquisition of players, particularly in the NHL Entry Draft. One such example, however, involves a study by Lavoie (2003) that examined whether the teams' locations have any impact on the GMs' drafting decisions. He considered three regions: French Canada, English Canada, and the USA. Lavoie concluded that the American teams' GMs discriminated against French Canadian players; meanwhile, Canadian teams' GMs were noted as discriminating against European players. He proposed that "there are essentially two possible sources of entry discrimination at the time of the draft: either scouts are biased in their reports, or GMs and coaches tend to draft local players when they have to choose between players who are approximately equally rated" (p. 394). He also noted that, "neither the ethnic origin of

NHL coaches and GMs nor the idiosyncratic behaviour of specific teams is able to adequately explain the results" (p. 379). He further determined that for French Canadian players:

> The use of various measures of robustness or defensive play, such as the height or weight of a player, the number of minutes of penalty piled up per game, or a dichotomic variable showing whether the player usually participates or not in short-handed play, makes no difference. European players appear to suffer the same fate (Lavoie, 2003, p. 399).

Additionally, Longley (2003) examined the underrepresentation of French Canadians in the NHL for the decade from 1989-1990 to 1999-2000. He used two tests that focused on French Canadian representations:

> "as measured by the number of NHL games that French Canadians play for English Canadian teams versus for U.S. teams; and a second that focuses on the NHL Entry Draft and the extent to which English Canadian and U.S. teams may differ in their propensity to draft French Canadians" (p. 379).

Longley concluded that "the customer discrimination hypothesis... [or] the preferences of fans, as measured by whether the teams are located in English Canada or in the United States, is the only variable that seems able to explain this underrepresentation" (p. 379).

Christie (2010) indicated that the Lavoie (2003) study results were actually "unambiguous" (p. 5) and criticized the model utilized as "underspecified" (p. 5). Thus, Christie's master's thesis study, and the subsequent Christie and Lavoie (2014) manuscript, sought to update the Lavoie study on the 1993-1994 NHL draft year with an examination of the 2009-2010 draft year. In this updated study, Christie (2010) employed

a regression "model of entry draft discrimination based on player origin" (p. 11) and sought to "capture entry draft discrimination based on location of the drafting team" (p. 12). He focused on the racial discrimination literature and concluded that French Canadian players did not face discrimination; but he concluded that Europeans and Russians are still undervalued by the GMs. Teams' limited ability to constantly watch players in Europe and cultural differences still impact their NHL draft position. He framed draft bias as the "KHL effect" (p. 26). Further, the study by Christie and Lavoie (2014) supported this conclusion indicating that the "entry discrimination against French Canadian hockey players seems to have disappeared" (p. 1). They also noted that "there is still apparent entry discrimination against non-Russian European hockey players, but less so than before" (p. 1). Importantly, they found "a strong and obvious KHL effect against Russian hockey players, which discourages NHL teams from drafting young Russian players as early as they should" (p. 1). It is important to note that these studies were based only on the limited data of one season. Interestingly, the studies by Christie and Lavoie found that Europeans were undervalued; however, this topic is rarely discussed in the popular media by proclaiming that there is the "Swedish Factor" or the "Czech Factor." However, there are some articles discussing the "Russian Factor" or the "KHL Factor" as was discussed earlier in this thesis. The studies by Christie (2010) and Lavoie (2014) looked at European players as one group rather than subdividing them into European country groups such as Sweden or Finland. In contrast, this thesis research included data of 17 draft years and considered draft rankings for each major European "hockey-country" as well as accounted for the leagues impact on the players' draft rankings.

Next, Chapter Three offers a discussion of the research method for this study. The chapter will include the description of the collected data and present the reader with the empirical model and various specifications of this model that were used in this study. Importantly, the test for hypothesis will be discussed within this upcoming chapter.

CHAPTER 3: METHOD

The purpose of this thesis is to statistically assess whether Russian hockey players' draft rankings in the NHL Entry Draft are worse relative to comparable players from other countries. This study attempts to infer whether the negative brand associations attached to Russian hockey players could be a factor that impacts their draft rankings. This chapter is divided into three sections. The first section provides a brief discussion regarding the researcher's methodology. This chapter then deals with the data collection process and the research method that was developed. Finally, the third section consists of a brief discussion regarding the validity and reliability of the chosen method.

Methodology

Neuman (2003) stated "research methodology is what makes social science scientific" (p. 68). Selection of methodology is one of the important steps in research (Sarantakos, 2012). Indeed, selection of quantitative methodology should be based on suitability and interest in presenting objective numerical results retrieved from a large sample (Sarantakos, 2012). The focus of quantitative research should be to explain phenomena "primarily through objective measurements and quantitative analysis" (Firestone, 1987, p. 16). Therefore, given the researcher's interest in assessing Russian players' draft standings in the NHL, it is appropriate to use quantitative methodology, rather than qualitative methodology that is concerned with such methods as interviews, case studies, ethnographic research, to list just few examples (Given, 2008).

A philosophy that underlies quantitative methodology is often described as positivism or the positivist paradigm (Muijs, 2010). This paradigm is based upon the idea that the "truth is out there, and it is the job of the researcher to use objective research

methods to uncover that truth" (p. 3). In many cases, quantitative researchers try to predict the truth, which is often called a hypothesis. Hence, the goal of a quantitative researcher is to prove or disprove a hypothesis (Arghode, 2012). Consequently, the truth about the Russian players draft status is within the Entry Draft results. Considering a large sample consisting of 3,159 players represented as year-draft pick observations in regression analysis makes it possible to uncover whether Russian players are drafted relatively equal to their non-Russian counterparts in the NHL Entry Draft.

Since quantitative research is concerned with collecting, analyzing, and displaying data in numerical, rather than narrative form, it is appropriate to use linear regression analysis. The next section provides a discussion regarding the data collection process followed by a method description consisting of multiple linear regression models. The method section also provides an equation within which various regression model specifications were nested.

Method

A quantitative analysis based on various regression model specifications was used to investigate whether Russian players were drafted relatively equal to comparable players from other countries in the NHL Entry Draft. The data was collected from the website NHL.com, which was deemed a valid and reliable source as it is indicated on the website. The analysis consisted of various model specifications based on the entire sample of data consisting of 3,159 year-draft picks. A discussion regarding the data collection and the empirical approach is offered below.

Data Collection

The NHL year-draft pick and player information data were collected from the NHL.com for most years ranging from 1993 to 2013. For each year-draft pick, the data contained the NHL draft team, the identity of the player drafted, the player's country of origin, position, physical characteristics, performance statistics, as well as the player's previous team and leagues. In terms of performance statistics, the data contained each player's number of games played, goals per game, points per game, and penalty minutes. Physical characteristics included players' height (in inches) and weight (in pounds).

Players were categorized into nationality groups based on their country of origin. Specifically, players were categorized as Canadians, Czech, Finnish, Russian, Slovakian, Swedish, USA (American), or Other Nationalities. The players' prior leagues were categorized into CHL, NCAA, European leagues, all Russian leagues, and Other leagues.

From 1993-2011, the number of NHL teams and draft rounds varied slightly. As a result, the number of rounds changed from 11 in 1993 and 1994 to nine in 1995-2003 to only seven in 2004-2013. Consequently, the number of players selected decreased from approximately 280 to about 210 per draft. Overall, there were a total of 5,195 players drafted in the NHL between 1993 and 2013. Two adjustments were made to the final data set including the omission of four draft years 1997, 2002, 2009, and 2011, as well as the omission of the goaltenders. The four draft years were omitted due to program error. Having collected the missing data may have been beneficial, but very likely would not have changed the final results. The goalies were omitted because their performances statistics indicators differ from those that are used to assess forward or defenceman. Goalies' performance statistics do not include goals and assists; instead, it includes such

indicators as wins, losses, goals against average, save percentage, and shutouts. Therefore, the final data set consisted of 3,159 year-draft pick observations, with each consisting of the players' countries of origin, their positions, physical characteristics and historical performance statistics.

The period of time from 1993 to 2013 is particularly relevant for the purpose of this study as the Russian free travel policy that allowed Russian players to travel overseas and eventually play in the NHL was established in 1993. There were very few Russian players who had done so prior to that date.

Empirical Approach

Multiple linear regressions were used to obtain draft rank parameter estimates across nationality groups, holding other factors that can potentially affect draft ranks. The analysis consisted of various model specifications based on the entire sample of data. First analysis used the entire sample to estimate the overall draft positions of the nationality groups. Second analysis was similar to the first, but was based on CHL players only. Third analysis considered the specific performance and physical characteristics of all players as additional factors in estimating the overall draft standings for each nationality group. Fourth analysis was similar to the first analysis, but considered only CHL players. A final analysis estimated all players but, unlike the first and third analyses, differentiated Russian players who played in the CHL and Russian players who played in any other league. The various model specifications were nested within the following equation:

$$Overall_{t,i} = a + \mathbf{ETH}_{\mathbf{i}}'\mathbf{B} + \mathbf{PER}_{\mathbf{t,i}}q + \mathbf{CHA}_{\mathbf{t,i}}\Upsilon + \mathbf{LEAGUES}_{t,i}\Phi + e_{t,i}$$

The unit of observation was the year-draft pick (player). The dependent variable, $Overall_{t,i,}$, represented every draft ranking for player, *i*, in year, *t*. A player's overall position varied anywhere between 1 and 293, depending upon a draft year. The matrix $\mathbf{ETH}_{\mathbf{i}}^{'}\mathbf{B}$, represented nationality groups including Czech Republic, Finland, Sweden, Russia, Slovakia, United States, or Other Nationalities. Canada was omitted from the model to avoid perfect multicollinearity, which appears when two or more independent variables display a deterministic linear relationship not allowing the regression to be run properly (Kennedy, 2003). The matrix $\mathbf{PER}_{\mathbf{t,i}}q$ included a set of player specific performance statistics including number of games played, goals per game points per game, and penalty minutes. The assists were not included as many players did not have assists indicators attached to their performance statistics on the NHL.com. The matrix $\mathbf{CHA}_{\mathbf{t,i}}\Upsilon$, physical characteristics, controls for players' relative physical characteristics included height (in inches) and weight (in pounds). The matrix $\mathbf{LEAGUES}_{t,i}$, consisted of a set of different leagues that were grouped into the following: NCAA, European, Russian, and Other leagues. The CHL group was omitted from the model to avoid perfect multicollinearity in the specification that accounts for the leagues.

It is important to note that the performance statistics matrix, $\mathbf{PER}_{\mathbf{t,i}}q$, accounted for the players' quality that was measured in games played, goals per game, points per game, and penalty minutes. The vector "games played" consisted of a set of continuous variables ranging between the lowest, 1, and the highest, 151. Similarly, "goals per game" variables ranged between the lowest, 0, and the highest, 1.05, while "points per game" ranged between 0 and 2.68 and "penalty minutes" between 0 and 684. Conversely, the physical characteristics matrix, $\mathbf{CHA}_{\mathbf{t,i}}\Upsilon$, accounted for the players' height and

weight that were reformatted to inches and pounds, respectively. The height vector consisted of a set of discrete variables ranging between the lowest, 65 inches, and the highest, 81 inches. The weight vector consisted of a set of discrete variables ranging between the lowest, 123 pounds and the highest, 265 pounds.

A set of different leagues within the matrix $\mathbf{LEAGUES}_{t,i}$, were categorized in order to limit the number of country variables to only relevant ones. As such, the variable "Other leagues" included a combination of the leagues that were of less importance to this study. It is important to note that the Superleague (a predecessor of the KHL) and the KHL were placed in the same category, as the analysis was not aimed at identifying the impact of these two leagues on the draft standing. Nevertheless, one of the objectives of the analysis was to compare the impact of the CHL on Russian players' draft standings to the impact of the Russian leagues on the same group of players.

Hypothesis

The regression model above was used to test whether Russian players were drafted worse than relative comparable players from other countries. The hypothesis was framed in terms of parameters of the regression model to assess magnitudes and test the significance of nationality bias accounting for factors that can potentially impact the draft standing including physical characteristics, statistical performance, and previous leagues played. Nationality bias was evaluated by estimating whether Russian players' draft standings are worse relative to comparable players from other countries. Every nationality group was measured against Canadians, while all other factors except for those mentioned above are held constant.

The specific hypothesis test is represented in the following:

$$H_0(\textit{No Russian Factor Bias}): \mathrm{B}_{\mathbf{Rus}} \pounds 0$$

In the absence of the nationality bias directed toward Russian players, one would expect the Russian players' overall draft ranking to be *not* much worse than Canadians or any other nationality group's rankings. Similarly, in accounting for the performance statistics, physical characteristics, and previous leagues played, one would expect similar result. If Russian players were not drafted relatively equal to all other nationalities including Canadians, then it can be inferred that one potential reason for it is the negative brand associations attached to the Russian hockey players. Otherwise, brand associations are inferred to have no effect on the Russian players draft standings. The analysis described above was consistent with the principles of reliability and validity in order to yield accurate results and conclusions.

Reliability and Validity

In this research, reliability is referred to as the level of stability and consistency of the data. Reliability was advanced with "the consistency of items within a measure" (Ross, Bang & Lee, 2007, p. 108). The consistency was ensured by collecting the data from 1993 to 2013 from the same source (the NHL Entry Draft's official website) which is deemed current and reliable based on the statements that were made by the NHL on the website. The data set consists of a larger sample that would distribute itself normally around the population mean and with a more proportional standard error to the population. In other words, the bigger the sample, the lower the standard error. The regression was run multiple times to ensure reliability. The results that were generated from the multiple runs of the regression analysis were the same, which suggests that the

results were reliable. Applying a multivariate regression analysis to determine the average specific information in relation to the sample has been generally viewed as a reliable method (Hidalgo & Goodman, 2013). In addition, this study includes multiple regression test items such as player-specific statistical information, physical characteristics, and nationality indicators. These items demonstrate that this research accounted for the bigger picture and captured multiple aspects of the units of observation, which enhances the reliability of the study.

Validity is described by Hammersley (1987) as an accurate representation of the features of the phenomena that the study intended to describe, explain or theorize. There are two categories of validity – internal and external (Hammersley, 1987). Internal validity reflects the extent by which a study minimizes bias. In this study, the regression analysis accounted for a number of different variables (nationality, points per game, penalty minutes, games played, height, weight, and leagues) that may impact the results of the study. Hence, the bias was minimized and internal validity was ensured. Nevertheless, the analysis could have benefited had it accounted for other variables such as assists, players' plus-minus coefficients, and shots on net. Accounting for these variables would have further improved this study's internal validity. The external validity reflects the generalizability of the data (Hammersley, 1987). In this study, using a large sample consisting of 3,159 players and the players' performance statistics as well as physical characteristics ensured the external validity.

CHAPTER 4: RESULTS AND DISCUSSION

Summary

This research sought to understand potential draft biases related to Russian hockey players in the NHL Draft. These biases are potentially formed through the negative brand associations attached to Russian hockey players and could be damaging Russian players' draft rankings. A regression model tested whether the Russian players were drafted worse in the NHL Entry Draft relative to comparable players from other countries. The analysis used two data sets – the entire data set and the CHL data set. The entire data set was initially based on all drafted players between 1993 and 2013 (with an exception of four draft years described above) and was used to analyze the draft rankings of all players drafted between the selected timeline. The CHL data set was based on all players who played in the CHL at least one year prior to the draft between 1993 and 2013 and was analyzed to enhance understandings of the CHL's impact on the players' draft rankings.

Table 1 presents the summary statistic results by showing the average draft rankings across nationality groups without considering any other potential factors. The summary statistics revealed that a draft rank for the Russian players group was 126.53 with the standard deviation of 79.76, while for the Canadian players it was only 116.6 with the standard deviation of 75.68. Russian players who played in the CHL were drafted 91.67, which is approximately 25 ranks better than Canadians, the vast majority of whom played in the CHL. The rest of the nationality groups were drafted worse than Canadians. The average draft ranking for the USA group was 126.71, Czech Republic

was 127.39, Sweden was 136.92, Slovakia was 141.21, and Finland was 148.26. The standard deviations varied between 73.80 and 81.37.

Table 1 also shows the summary statistics concerning nationality-specific physical and performance characteristics for the entire sample. Canadian players' height and weight was on average 73.34 inches and 197.89 pounds. Russians had the lowest average for height and weight among the nationality groups with 72.57 inches and 192.75 pounds, respectively. Similarly, the Russian players in the CHL were an average height of 72.71 and weight of 193.83 pounds. The tallest players were Slovakian who were on average 73.47 inches tall and weighed 198.32 pounds. The standard deviation for height ranged between 1.70 and 3.45 while for weight it varied between 19.03 and 14.18.

The Canadians' performance statistics were the best among the nationality groups with 0.71 points per game while the results for games played and penalty minutes were 58.32 and 85.24, respectively. In contrast, Russian players' average for points per game was 0.45; for games played, it was 47.27 and for penalty minutes, it was 39.95. Meanwhile, the results for Russians who played in the CHL were slightly different with 0.66 points per game, 57.71 games played and 54.54 penalty minutes. The results for the rest of the groups ranged from 0.41 to 0.71 points per game, 43.59 to 58.32 games played, and 39.95 to 85.24 penalty minutes as shown in Table 1.

Ignoring the nationality factor, on average a player was drafted 124.36. A player's overall draft rank varied anywhere between 1 and 293, depending upon the draft year. On average a player performed in 52.84 games, while the number of games played ranged between a minimum, 1, and a maximum, 151. Similarly, the average number of points per game scored was 0.60 while for penalty minutes it was 57.91. The standard deviation

for the points per game was 0.41 and the results ranged between 0 and 268. Conversely, the standard deviation for penalty minutes was 57.91 and results ranged from 0 to 684. With respect to physical characteristics, an average height was 73.22 inches with the standard deviation of 2.33 and results varied between 65 and 81. An average weight was equivalent to 196.43 with the standard deviation of 16.64 and the results ranged between 123 and 265 pounds.

Based on the results in Table 2, the average overall draft ranking for the CHL data set was 106.53 with the standard deviation of 73.33 and the players' rankings varied between 1 and 292. On average, a CHL player performed in 62.31 games with the standard deviation equivalent to 17.31 and results ranged between 1 and 151. An average points per game was 0.73 and the standard deviation was 0.45. The results varied between 0 and 2.68. Further, the results showed 91.46 penalty minutes with the standard deviation of 71.79 and the results between 0 and 684 minutes. The height was 73.43 with the standard deviation of 1.98 and height possibilities between 67 and 80 inches. Meanwhile, the weight was 199.35 and the standard deviation was 17.13 while the results ranged between 144 and 265.

Empirical Results

Tables 3 – 5 show the results based on various regression model specifications. All model specifications were estimated by the Ordinary Least Square (OLS). Table 3 represents the results for the first analysis based on the entire sample. The table consists of four columns presenting the results for each model specification. The first column displays the draft rankings for each nationality group relative to the constant variable (Canadians). Similarly, the second column includes the results for the second model

specification. The second specification is similar to the first model, but considered the additional factors such as points per game, penalty minutes and games played. The second table also shows the impact of each performance statistics variable. The third column encompasses the results for the third model specification that accounts for the additional factors such as height and weight. Finally, the fourth column presents the fourth specification results that account for the leagues variables as the additional factors that may influence nationality groups' draft rankings.

Each row in the table represents variables that were used in the regression model specifications. The variables were segregated into four sections: nationality groups, performance statistics, physical characteristics, and previous leagues. The table further includes the sample number and adjusted R^2 for each specification at the bottom two rows. The standard errors were presented in parentheses below each estimate. The adjusted R^2 in table 3 ranged between 0.01 and 0.123 across the specifications. The sample decreased from 3,159 year-draft pick in the first specifications to 3,075 in the second, third and fourth specifications due to missing variables associated with some of the draft-year picks. For example, if some draft-year picks had missing physical characteristics or performance statistics information then this pick was eliminated from a model specification. As a result, 84 year-draft picks were dropped. Although the level of significance for all players was measured at 1%, 5% and 10% through tables 3 – 5, the significance does not exceed the 1% level. The coefficients (and associated level of significance) for the Russian players were 9.927 (at 1% level) in the first specification and -14.079 (at 1% level) in the fourth specification.

Based on the first specification results, it could be inferred that all things being equal Russian players were drafted 9.927 positions worse than Canadian players. Other nationality groups were also drafted worse than Canadians: Finnish were ranked 31.657, Slovakian 24.609, Swedish 20.316, Czech 10.785, USA 10.103 and Other Nationalities 7.073.

The results for the second specifications implied that when accounting for the performance statistics, Russian players were drafted better than Canadians by 1.543 positions (represented as -1.543 in Table 3). USA players were also drafted better than Canadians by 2.612 draft ranks (represented as -2.612 in Table 3). It was not the case for other nationality groups. Slovakian players were ranked 27.462, Finnish 23.444, Swedish 9.733, Czech 8.178, and Other Nationalities 1.832. It could also be inferred from the results that every additional point per game dropped (betters) a player's ranking by 16.934 positions. Similarly, an additional minute in penalties increased (worsens) a player's draft ranking by 0.105 positions and an additional game played dropped (betters) a player's draft position by 0.909. The standard error for the constant in the second specification was 5.208. The standard error for the nationality-specific variables for the second specification fell between 3.835 and 8.248. The standard errors for the performance characteristics were between 0.027 and 3.556.

The results based on the third specification displayed that the Russian players' rankings improved when accounting for physical characteristics in addition to performance statistics. In this specification, Russian players were drafted better than Canadians by 5.515 (represented as

-5.515 in Table 3) positions. This was also the case for the USA players who were drafted 0.844 (represented as -0.844 in Table 3) positions better than Canadians. Other nationality groups were drafted worse than the Canadians: Slovakian players were ranked as 29.551, Finnish as 19.527, Czech as 8.688, Swedish as 5.820, and Other Nationalities as 0.925.

The results implied that the taller the player, the better his draft ranking. An additional inch of players' height improved a player's draft ranking by 2.119 positions and an additional pound dropped it by 0.988 positions. The standard error for the constant in the third specification was (43.967). Meanwhile, the standard errors for the physical characteristics were (0.094) for weight and (0.656) for height.

Finally, the fourth specification considered the leagues where the players played during their draft year. Further improvement for the Russian players' rankings can be seen in the fourth specification results. Russians were drafted 14.079 (represented as -14.079 in Table 3) ranks better than Canadian players, which placed the Russian players ahead of all nationality groups in this specification. Other nationality groups also showed improvements since the previous specification. The USA players were drafted 12.945 (represented as -12.945 in Table 3) ranks better than the Canadians; Swedish players were drafted 9.311 (represented as -9.311 in Table 3) positions better; Other Nationalities were drafted 9.032 positions better (represented as -9.032 in Table 3), and Czech players were drafted 1.728 (represented as -1.728 in Table 3) better than the Canadians. It could be inferred from the results that playing in the CHL at least one year prior to the NHL draft provided a positive impact on the players' rankings compared to playing in any other league. For example, playing in the NCAA at least one year prior to the NHL Entry

Draft worsens players' draft rankings by 20.341 positions in comparison to playing in the CHL (constant). This implies that if two equivalent players were available for the Draft from these two leagues, one from the CHL and one from the NCAA, the one who played in the NCAA would be drafted 20.341 positions higher (worse) than the one who played in the CHL. Similarly, playing in a European league worsens players' draft rankings by 17.688 positions; playing in a Russian league worsens players' rankings by 11.761 positions, and playing in any other league (except the CHL) worsens players' draft rankings by 24.472 positions. The standard error for constant in the fourth specification is (43.928). The standard error for the leagues ranged between (3.839) and (8.592).

The CHL players sample

Table 4 is similar to Table 3, but includes the results for the CHL players sample and, therefore, eliminated the league variables from the table. The adjusted R^2 ranged between 0.006 and 0.082 across the specifications. The sample consisted of 1,286 year-draft pick in the first specification and 1,249 in the second and third specifications that are represented within the second and third column of the table. A drop in the sample happened for the same reason as in the previous analysis, which is due to missing variables associated with some of the year-draft picks. The level of significance did not exceed the 1% level.

The CHL sample results were different than the entire sample results. Based on the first specification results, Russian players were 16.533 (represented as -16.533 in Table 4) ranks better than Canadians. In comparing this result to the one from the first analysis (9.927 ranks worse than Canadians), one could infer that the CHL has a positive impact on the Russian players draft rankings. The results of 9.927 and -16.533 were both

yielded from the same specification, but with different samples. The USA players were also drafted better than Canadians by 16.985 positions (represented as -16.985 in Table 4). It is also the case for Finland -3.033 and Other Nationalities ethic group -28.866, which further suggests the positive impact of the CHL on players' draft rankings. Czech 4.278 and Slovakian 22.035 players also experienced positive improvement since the entire sample results, but they were still drafted worse than Canadians. The results for Swedish players, who were drafted 39.134 ranks worse than Canadians, appeared as a surprise. It seems that playing in the CHL may negatively impact Swedish players' rankings (the only group to have this result). The standard error for the constant (Canadians) in the first specification was 2.245.

When accounting for the performance statistics, the Russian players still remained better positioned in the draft than Canadian players by 13.746 ranks (represented as -13.746 in Table 4). The same applied to the USA players and Other Nationalities group who were better than Canadians by 16.289 and 27.885, respectively (represented as -16.289 and – 27.885 in Table 4). The Finnish players' rankings, however, diminished placing them 2.477 ranks after Canadians. The Czech and Slovakian players were drafted 4.944 and 22.301 ranks worse than Canadians. Swedish players experienced a slight improvement relative to the first specification results with 33.512 ranks worse than Canadians. The results suggested that every additional point per game in the CHL improved players' rankings by 5.222 ranks; an additional minute in penalty worsens a draft position by 0.135 ranks, and an additional game played improved players' rankings by 0.23 ranks. The level of significance did not exceed 1%.

A further improvement for Russian players' ranks can be seen in the third specification that incorporated additional variables such as height and weight. Russian players were drafted 19.197 positions better than Canadians (represented as -19.197 in Table 4). Consistently with the previous two specifications, Russian players' rankings were much better than the Canadian players' rankings. The USA players' ranks were also consistent with the previous specification, which placed them 12.411 positions better than Canadians (represented as -12.411 in Table 4). The Other Nationalities group was 26.218 ahead of Canadians (represented as -26.128 in Table 4). Meanwhile, Czech players were drafted 4.311, Finnish 7.795, Swedish 23.713, and Slovakian 27.952, which kept them in the worse draft positions compared to Canadians. This was also consistent within the second specification.

Consistent with Table 3 results, based on the findings in Table 4 it can be inferred that the taller players had higher chances of getting drafted better than shorter players. An additional inch of player's height improved his draft ranking by 3.23 positions and an additional pound improved a player's draft ranking by 0.912 positions. The standard error for the constant in third specification was 85.609, while for the physical characteristics were 0.151 for weight and 1.317 for height.

Russians in the CHL variable within the entire sample.

Table 5 includes the final analysis results. The final analysis estimated all players, but differentiated Russian players who played in the CHL, as well as the Russian players who played in Russian leagues. Table 5 was structured in the same manner as Tables 4 and 5. The adjusted R^2 ranged between 0.012 and 0.123 across the specifications. Akin to Table 3 results, the sample consisted of 3,159 year-draft picks in

the first specification and 3,075 in the subsequent three specifications. The standard error for the nationality-specific variables ranged between 3.680 and 16.387.

Based on the first specification results, it can be inferred that Russian players who did not play in the CHL were drafted 13.049 ranks worse than Canadians, while Russians who played in the CHL were drafted 37.986 ranks better than Canadians (represented as -37.986 in Table 5). These results were consistent with Table 3 and Table 4 results and further suggest that the CHL could positively impact Russian players' draft rankings. The other nationality groups were drafted noticeably worse than Canadians with the Other Nationalities group being 7.073, USA 10.103, Czech 10.785, Swedish 20.316, Slovakian 24.609, and Finnish 31.657. Since these nationality groups were drafted worse than Canadians, they are also drafted worse than Russians who played in the CHL.

The rankings for many nationality groups improved in the second specification. The difference between the Canadians' rankings and the Russians who did not play in the CHL rankings was minimized to 0.712 ranks in favour of Canadians. Meanwhile, the Russian players who played in the CHL were drafted 24.833 ranks better than Canadians (represented as -24.833 in Table 5). This result is slightly worse than in the previous specification but still keeps Russians in a better position compared to the Canadians. The USA players' results improved, placing them ahead of Canadians by 2.494 positions (represented as -2.494 in Table 5). Meanwhile, other nationality groups continued to have worse rankings than Canadians with the Other Nationalities group being drafted 1.908, Czech 8.227, Swedish 9.898, Finnish 23.552, and Slovakian 27.486. An additional minute in penalties worsened a player's draft position by 0.105. An additional game played improved a player's draft position by 0.904. The standard error for the constant in

the second specification was (5.216), while for the performance characteristics were between (0.027) and (3.558).

The results for the Russian players who did not play in the CHL changed further in the third specification that accounted for the physical characteristics as the additional factors that impacted the draft rankings. The Russians, nevertheless, were still drafted 3.347 ranks better than Canadians, and the Russians in the CHL were drafted 29.573 ranks better than Canadians (represented as -29.573 in Table 5). Other nationality groups remained in the position of being worse than Canadians with the exception for the USA players who were drafted 0.729 ranks better than Canadians (represented as -0.729 in Table 5).

Based on the results under this specification, taller players have a better chance to get drafted earlier, which is consistent with the Table 3 and Table 4 results. An additional inch of player's height improved his ranking by 2.103 positions while an additional pound improved a player's ranking by 0.989 positions. The standard error for the constant in the third specification was (43.968) and the standard errors for the performance characteristics were between (0.027) and (3.650).

Finally, when the regression model accounted for the leagues, Russian players who did not play in the CHL were still drafted 12.853 ranks better than the Canadians which was comparable to the USA players who were drafted 12.715 ranks better than Canadians (represented as -12.715 in Table 5). Meanwhile, Russians who played in the CHL were drafted 7.908 positions better than Canadians (represented as -7.908 in Table 5), which represented a drop in the advantage over the Canadians. They, however, still remained ahead of the Canadian players. Unlike in the first three specifications, the

Swedish and Czech players were drafted ahead of the Canadians by 9.026 and 1.527 ranks, respectively (represented as -9.026 and -1.527 in Table 5). Finnish and Slovakian players continued to be drafted worse than Canadians by 5.329 and 16.366 ranks, respectively. Based on the results in the final specification, the CHL was the best league from which to be drafted. The standard error for the constant in fourth specification was 43.934, while the standard error for the leagues ranged between 3.925 and 8.927.

Discussion

Based on the results presented across the Tables, one can infer that Russian players were not drafted worse than their relatively equivalent counterparts from other countries. In the first specification of the entire sample analysis, Russians were drafted better than any other nationality group, except for Canadian players. However, when the regression model accounted for the players' performance statistics and physical characteristics the Russians appeared to be ahead of the Canadians. Other specifications yielded similar outcomes, which suggest that Russians are not being discriminated against in relation to Canadian players. In the CHL sample, Russians are again positioned better than Canadians. Their draft rankings in every specification demonstrated an absence of any biases against Russian players which means that there is no the so-called Russian Factor. Indeed, this term the Russian Factor can be redefined given the results in the CHL sample which suggest that being a Russian player in the CHL is actually an advantage as they are drafted much higher than all other nationalities including Canadians.

The results for nationality groups do not seem to support Deaner, Lowen, and Cobley's (2013) assertion that GMs drafted players based on "the player's ability to make

a net contribution to their team." At least, it can be inferred from the results that the GMs are unlikely to view the net contribution as a combination of the points per game, penalty minutes and games played. For example, Slovakian players' results that had the third most points per game among the nationality groups within the entire sample, but their draft rankings were among the worst. This can also be observed in the Russian players group whose performance statistics is similar to Finnish players, but they were drafted better than Finnish players. Nevertheless, these results do not completely eliminate a possibility that the NHL teams actually assess their competitive resources (the players) from an objective perspective. Factors such as plus-minus efficiencies, number of hits, and shots on net could, as well as many other, account for why Slovakian players are drafted lower despite a high number of points per game, or why Russian players are drafted better than Finnish players.

Notwithstanding this finding, the hypothesis failed based on the results in Table 3, which means that Russian hockey players' draft rankings were *not* worse than comparable players' from other nationalities. The results were also contrary to the conclusions made by Christie and Lavoie (2014) in their study of the "KHL effect". They suggested that Russian players were undervalued and that there is an "obvious KHL effect against Russian hockey players, which discourages NHL teams from drafting young Russian players as early as they should" (p. 1).

The analysis of the CHL sample offered further support that the Russian players were drafted similarly or better than the Canadians. Therefore, it reinforced the above assertion that the hypothesis presented earlier failed. The results for the Russian players appear to be consistent with the entire sample analysis as their rankings were much better

than Canadians. However, their statistical performance was not much better than the Canadian players' performance, except for the penalty minutes (see Table 2). This seemed to contradict the idea of drafting a player who can make the most net contribution to the team. Perhaps, it happened because the GMs (perhaps, through the team scouts) were able to constantly watch the players and assess them based on other subjective criteria, for example, their defensive playing style, which was not accounted for in these analyses. Importantly, the results demonstrated that the CHL had a positive impact on Russian players' draft rankings regardless of whether they were performing better than Canadian players, which was further reinforced in the final analysis results (see Table 5).

Based on the results it can be inferred that despite negative brand associations attached to the Russian hockey players (Kelly, 2013; Kennedy, 2013; Lambert, 2012; Larin, 2010), their draft rankings were similar or better than Canadian players and, subsequently, other nationality groups. Notwithstanding the assertions of many researchers (Nedungadi, 1990; Romaniuk, 2003; Romaniuk & Nenycz-Thiel, 2013) that brand associations can impact the decision-making process, it did not seem to be the case in this study. However, such an inference is relative to the draft rankings of other nationality groups, which allowed for a possibility that the negative brand associations affect Russian players' draft ranking. In other words, if Russian players had no negative associations attached to them, their draft rankings would have been even better. Further, the results do not dismiss a possibility that GMs make their decisions sometimes based on social influences or "social defaults", which were examined by Huh, Vosgerau and Morewedge (2014).

Furthermore, the results for the entire sample analysis suggested that other nationality groups were generally drafted worse than Canadians despite their statistics. The exceptions were players from the USA and the Other Nationalities who were drafted ahead of the Canadians when the analysis accounted for the physical characteristics and performance statistics. Surprisingly, the Finnish rankings were much worse than any other nationality group even when one accounted for physical characteristics, statistical performance, and leagues. This result could support Christie and Lavoie's (2014) study and proposition that some European nationality groups are undervalued; however, their low draft positions could be explained through examining the Finnish players' statistical indicators, which was one of the worst among the nationality groups (see Table 1 and Table 2). From the RBV, this made strategic sense for the GMs to avoid Finnish players or to keep them for later in the Draft, if they are not performing as well as other nationality groups.

The results for the CHL sample analysis strengthen the proposition that the CHL is the best league from which to be drafted. The results for almost every group in the CHL improved remarkably. Finnish players, as a result, appeared to be drafted ahead of Canadians. Interestingly, the performance statistics and physical characteristics for the Finnish players in the CHL were much better than for Finnish players who played in other leagues. Finnish players who played in the CHL performed roughly the same as Canadians. This further supports that GMs adhere to the idea of drafting the best player available as per the RBV. The draft rankings for the Swedish players, however, remarkably worsened, placing them behind every nationality group. Their results were also among the worse in the entire sample analysis. Although one could interpret that as a

potential discrimination toward Swedish players, it is probably not the case as their performance statistics were also among the worst.

Trends in the GMs' decision-making

Overall, the results suggest a number of interesting trends in the GMs' decision-making. First, it can be interpreted that performance statistics and physical characteristics are contributing factors in the GMs' decision-making process. This can be seen in many examples demonstrated above where nationality groups' performance statistics reflected in their draft positions. Second, the results suggest that leagues also play an important factor in the GMs' decision-making. As it was proposed above, this could be the case because the GMs (through the teams' scouts) can have better access to the players in the CHL than, arguably, in any other league. The GMs and scouts can constantly assess the player not only from the performance statistics but also from the players' playing style, for example. Third, nationality does matter, but arguably only in cases where the players are drafted from leagues other than the CHL. For example, Slovakian players are constantly drafted worse than Canadians despite having similar performance statistics. This trend was not under examination based on the RQ and hypothesis in this study; however, the rise of this data makes this topic one of interest for future research.

CHAPTER 5: CONCLUSIONS

In his study, Lavoie (2003) found a presence of discrimination against European and Russian players in the NHL. He noted that, "neither the ethnic origin [(referring to nationality)] of the NHL coaches and GMs nor the idiosyncratic behaviour of specific teams is able to adequately explain the results" (p. 379). Lavoie's further study with Christie supported the presence of discrimination indicating that there is still apparent discrimination against European players and a strong and "obvious KHL effect against Russian hockey players, which discourages NHL teams from drafting young Russian players as early as they should" (Christie & Lavoie, 2014, p. 1). Despite these studies, there was almost no research conducted examining the phenomena. A number of popular media articles, however, discussed the issue concerning Russian players specifically, suggesting that the Russians are undervalued in the draft and generally viewed negatively by the GMs (Larin, 2010; Fedin, 2012; Piontkovskiy, 2012; Kennedy 2013b; Kelly, 2013). Recognizing that there is a lack of evidence suggesting discrimination and limited understanding concerning the phenomenon, Kennedy (2013b) proposed that the managers of a hockey enterprise must ascertain whether to consider a Russian player as a potential selection in the NHL Entry Draft or not. In light of this proposition, this study's purpose was to investigate whether Russian hockey players were drafted worse in the NHL Entry Draft relative to comparable players from other countries. Additionally, the study was conducted in order to test the following hypothesis: Russian hockey players' draft standings are worse than comparable players' from other nationalities because of the negative brand associations attached to Russian players. The empirical analysis used

in this study helped to infer whether the negative brand associations attached to Russian players could have impacted the Russian players draft rankings.

The overall conclusion derived from the empirical analysis was that Russian players were not drafted worse in the NHL Entry Draft relative to comparable players from other countries. In every analysis specification, Russian players were drafted similarly or better than players from other countries. Therefore, negative brand associations, such as loners, bad teammates, lazy etc., probably have no impact on their draft rankings. Despite this conclusion, there are two other important findings this study offered. First, Russian players who played in the CHL are actually drafted much better than any other nationality group, including Canadians. Given these results, the Russian Factor was redefined from a notion that allegedly damages Russian players' rankings to one that enhances their rankings. Indeed, this term now suggests that being a Russian player in the CHL is actually an advantage as they are drafted much higher than all other nationalities including Canadians. Second, the results suggested that playing in the CHL improves every nationality group's draft rankings, except for Swedish players. This could be the case because of the Swedish players' unimpressive statistical performance in the CHL, which was among the worst.

The study's findings could help Russian and European players to make better strategic choices regarding their career path leading up to the NHL. For example, the findings could help players' to determine what leagues would better suit their career path. It also provides a better understanding of how certain performance statistics and physical characteristics could affect their draft rankings. The results could also benefit the GMs who develop strategies on whether to draft Russian players earlier or later in the draft.

Finally, players' agents could benefit the most out of this study simply because knowing whether the Russians are likely to be drafted worse or better than other players could assist agents in knowing what clients to attract. For example, recognizing that Russians who played in the CHL are drafted better than any other nationality group would probably encourage agents to focus on attracting players from Russia who are considering playing in the CHL.

Interestingly, this study offered differing results compared to those within the literature. For instance, there was no basis of support found in this thesis for Larin's (2010) statement that GMs are hesitant to draft a Russian player, as the drafted player might just not report to the team. Also, this thesis did not support the Christie and Lavoie (2014) study that concluded that Russian players were discriminated against in the NHL Entry Draft. Such differences could be explained through the sample size of this thesis and the studies used by Christie and Lavoie. They used only one year of NHL Entry Draft data (2009-2010) while this study utilized a 22-year span of data. Perhaps, a Russian Factor appeared to be in effect in any one year, but not in effect if considered over the long-term. Therefore, it is possible that GMs are trying to draft the best players available without any concerns for the players' nationalities. In addition, the results also showed that it is unlikely that GMs social learning about Russian players through media sources had a significant impact on their decision-making process.

This study extended support for the Lavoie (2003) statement that the NHL Draft has not always considered players equally. Specifically, the findings in this research supported Christie's (2010), Lavoie's (2003) and Christie and Lavoie's (2014) findings

that European players were drafted later compared to their counterparts. This study, thus, proposes that a "European Factor" may exist and requires further study.

Future Research

This study offered understanding concerning the impact of the brand associations on the Russian hockey players' draft standings at the NHL Entry Draft. As well, it provides statistical results concerning their position for a period since 1993 to 2013. This area of sport management research is in the primary stages and there are multiple areas to be studied to move towards a robust body of literature. To begin, additional studies are needed to replicate and find support for, or to dispute, the thesis conclusions. This includes studies that focus on decades of NHL Entry Draft data, such as the 22-year focus utilized in this study, as well as research that focuses specifically on each year of the draft similar to studies by Lavoie (2003) and Christie and Lavoie (2013). The 1-year focus is needed to support or dispute the Christie and Lavoie (2014) findings that the Russians were not drafted relative to their counterparts in the NHL draft during the 2009-2010 hockey season. Does the Russian Factor exist in any given hockey draft? Further, studies on the number of Russian players that have the same statistics as their counterparts but did not get drafted, and the reasons for this lack of draft status, could provide additional understandings on the topic. Research on the Other Nationalities is needed to determine the players and their associated nationalities that make up this group and to determine why they are drafted ahead of the Canadians and Russians based on some variables. Also, the author of this study supports the call by Christie and Lavoie (2014) that "it would be interesting to conduct a similar study with goaltenders, based on their own performance indicators" (p. 12). A potential study could also investigate the difference between the

results for the top two draft rounds compared to the later rounds which can potentially reveal if there is a difference in the GMs' decision making for the early and later rounds.

Another area of research could include developing understandings pertaining to NHL GMs and their particular brand associations for the multiple nation brands for each country represented within the NHL, as well as their player brand associations, and particularly based on the results of this study, perceptions of European players. This research could include a focus on each European nation and their players' NHL draft positions, as well as research that focuses on Europe as a whole. A potential research study could also examine the impact of European professional leagues on a players' draft position. It could also analyse the average number of games played by each nationality and determine if the number of games played impacts players' rankings. Research could also focus on why certain hockey playing nations do not have any, or few, players that have been successful in the NHL Entry Draft. For example, why are there few players from Italy? Italy has had a top-tier professional ice hockey league since 1924, but produced very few NHL-calibre players (Eurohockey.com, 2015). It would be interesting to examine the role of mass media on the national brand perspectives of hockey players being drafted in each country as well as the impact of worldwide on-line media sources. Much research remains to be pursued to move this area of study beyond its formative stage.

References

Aaker, D. (1991). *Managing brand equity.* New York, NY: The Free Press.

Aaker, D. (1996). Measuring brand equity across products and markets. *California Management Review, 38*(3), 102-120.

Aaker J. L. (1997). Dimensions of brand personality. *Journal of Marketing Research, 34*, 347-356.

Aaker, D. & Biel, A. (2013). *Brand Equity & Advertising.* Psychology Press: New York.

Adomanis, M. (2013). *7 reasons that Russia is not the Soviet Union*. Retrieved from http://www.forbes.com/sites/markadomanis/2013/12/31/7-reasons-that-russia-is-not-the-soviet-union/.

Allan, D. (2012). *Teachers' completes $1.32 billion sale of MLSE*. Retrieved from http://www.otpp.com/news/article/-/article/21045.

American Marketing Association (AMA). (1960). *Marketing definitions: A glossary of marketing terms.* Chicago: AMA.

Anderson, J. (2007). Brand equity: The perpetuity perspective. *AMA Winter Educators' Conference Proceedings, 18*, 142-143.

Anderson, J., & Bower, G., (1973). *Human associative memory*, Erlbaum, Hillsdale, NJ.

Arai, A., Ko, Y. & Ross, S. (2014). Branding athletes: Exploration and conceptualization of athlete brand image. *Sport Management Review, 17*, 97-106.

Arghode, V. (2012). Qualitative and quantitative research: Paradigmatic differences. *Global Education Journal, 4,* 155-163.

Associated Press. (2013). *Maple Leafs top Forbes' list of NHL franchise value*. Retrieved from http://www.cbc.ca/sports/hockey/nhl/maple-leafs-top-forbes-list-of-nhl-franchise-value-1.2439946.

Barney J., & Clark D. (2007), *Resource-based theory. Creating and sustaining competitive advantage*. New York, NY: Oxford UP.

Barros, C. P., Ibrah, M., & Szymanski, S. (2002). *Transatlantic sport: The comparative economics of North American and European Sports*. Northampton, MA: Edward Elgar Publishing.

Batey, M. (2008). *Brand meaning.* New York, N.Y.: Routledge.

Bearden, W. O., & Etzel, M. J. (1982). Reference group influence on product and brand purchase decisions. *Journal of Consumer Research*, *9*(2), 183-194.

Belov, A. (2013). Top 90 largest salaries in the KHL. Retrieved from http://www.sports.ru/ hockey154502348.html

Berry, L. (2000). Cultivating service brand equity. *Journal of the Academy of Marketing Science, 28,* 128-137.

Berry, L., & Lampo, S. (2004). Brand in labour-intensive services. *Business Strategy Review*, *15*(1), 18-25.

Biehal, G., & Sheinin, D. (1998). Managing the brand in a corporate advertising environment: A decision-making framework for brand managers. *Journal of Advertising*, *27*, 99-110.

Blackett, T. (2004). What is a brand? In Clifton, R., Simmons, J., Ahmad, S. (2004). *Brands and Branding: An economists book,* 13-27, Princeton, NJ: Bloomberg Press.

Blackston. M. (2000). Observations: Building brand equity by managing the brand's relationships. *Journal of Advertising Research, 40*(6), 101-105.

Bourne, J. (2012). *Alexander Radulov, Andrei Kostitsyn, and the inner-workings of pro curfew*. Retrieved from http://blogs.thescore.com/nhl/2012/05/01/alexander-radulov-andrei-kostitsyn-and-how-pro-hockey-curfew-works/.

Boyne G., Meier K. (2009), Environmental turbulence, organizational stability, and public service performance. *Administration & Society*, *40*(8), 799-824.

Brodie, R. J., Ilic, A., Juric, B., & Hollebeek, L. (2013). Consumer engagement in a virtual brand community: An exploratory analysis. *Journal of Business Research, 66*(1), 105-114.

Brodie, R. J., Whittome, J, R., & Brush, G. J. (2009). Investigating the service brand: A customer value perspective. *Journal of Business Research, 62,* 345-355.

Bruggink, T. H., & Williams D. (2009). Discrimination against Europeans in the National Hockey League: Are players getting their fair pay? *American Economist, 53*(2), 82-90.

Campbell, J. D., & Fairey, P. J. (1989). Informational and normative routes to conformity: The effect of faction size as a function of norm extremity and attention to the stimulus. *Journal of Personality and Social Psychology*, *57*(3), 457-468.

CBC. (2005). *Danny Heatley avoids jail time*. Retrieved from http://www.cbc.ca/sports/hockey/dany-heatley-avoids-jail-time-1.556751

Chard, C. (2007). *Understanding organizational brand equity: A case study of the Ontario Hockey League.* Unpublished Doctor of Philosophy dissertation. Department of Sociology, University of Leichester, England.

Chesnokov, D. (2010). *Red scare: Why there's nothing to fear about Russians in NHL draft*. Retrieved from http://sports.yahoo.com/nhl/blog/puck_daddy/post/Red-scare-Why-there-s-nothing-to-fear-about-Rus?urn=nhl,250782.

Childers, T. L, & Rao, A. R. (1992). The influence of familial and peer-based reference groups on consumer decisions. *Journal of Consumer Research, 19*(2), 198-211.

Christie, T., & Lavoie, M. (2014). Entry discrimination in the NHL: Evolution and the KHL effect. *Eastern Economic Journal,* 1-16.

Christie, T. (2010). "*The KHL Effect": The evolution of entry draft discrimination in the National Hockey League 2009-2010*. M.A. Major Paper, University of Ottawa, Department of Economics. Retrieved from http://www.ruor.uottawa.ca/bitstream/10393/25392/1/2010_christie_thomas.pdf

Churchill, G. & Moschis, G. (1979). Television and interpersonal influences on adolescent consumer learning. *Journal of Consumer Research, 6,* 23-35.

Christodoulides, G. & de Chernatony, L. (2010). Consumer-based brand equity conceptualisation and measurement: A literature review. *International Journal of Market Research, 52*(1), 43-66

Cialdini, R. B. (2001). *Influence: Science and practice*, (4th ed.). Boston, MA: Allyn & Bacon.

Clark, K. (2011). *Where the NHL stashes its mistakes*. Retrieved from http://online.wsj.com/article/SB10001424052748703408604576164700332602230.html

Cox, D. (2012). *Alex Radulov could rejoin Nashville Predators for Stanley Cup push*. Retrieved from

http://www.thestar.com/sports/hockey/2012/03/13/alexander_radulov_could_rejoin_nashville_predators_for_stanley_cup_push.html.

Davis, S., & Dunn, M. (2002). *Building the brand-driven business: Operationalizing your brand to drive profitable growth.* San Francisco, CA: Jossey-Bass.

Deaner, R. O., Lowen, A., & Cobley, S. (2013). Born at the wrong time: Selection bias in the NHL draft. *PloS ONE, 8*(2), 1-7.

Deaner, R. O., Lowen, A., & Cobley, S. (2013). Born at the wrong time: Selection bias in the NHL draft. *PLOS ONE, 8*(2), 1-7.

De Chernatony, L., & McDonald, M. (2003). *Creating powerful brands in consumer, service, and industrial markets.* London, UK: Butterworth-Heinemann.

Eurohockey.com (2015). *Italy, hockey league*. Retrieved from http://www.eurohockey.com/country/134-italy.html.

Farquhar, P. H. (1990). Managing brand equity. *Journal of Advertising Research, 30*(4), 7-12.

Federal Migration Services. (2014). *History of development*. Retrieved from http://www.fms.gov.ru/about/history/details/38013/full/.

Fedin, F. (2012). *The Russian Factor: Nail Yakupov distances himself from stereotypical Russian image.* Retrieved from http://www.russianmachineneverbreaks.com/2012/06/03/the-russian-factor-nail-yakupov-distances-himself-from-stereotypical-russian-image/.

Firestone, W. A. (1987). Meaning in method: The rhetoric of quantitative and qualitative research. *Educational Researcher, 16,* 16-21.

Forbes. (2015a). *Toronto Maple Leafs*. Retrieved from http://www.forbes.com/teams/toronto-maple-leafs/.

Forbes. (2015b). *Dallas Mavericks*. Retrieved from http://www.forbes.com/teams/dallas-mavericks/.

Fort, D. (2003). *Sports economics.* Upper Saddle River, NJ: Prentice Hall.

French, A., & Smith, G. (2013). Measuring brand association strength: A consumer based brand equity approach. *European Journal of Marketing, 47,* 1356-1367.

Funk, D. C., & James, J. (2001). The psychological continuum model: A conceptual framework for understanding an individual's psychological connection to sport, *Sport Management Review*, 4*(2),* 119-150.

Gerrard, B. (2003). What does the resource-based view "bring to the table" in sport management research. *European Sport Management Quarterly, 3*(3), 139-144.

Gerrard, B. (2005). A resource-utilization model of organizational efficiency in professional sport teams. *Journal of Sport Management*, 19, 143-169.

Gerchak, Y., Mausser, H., & Magazine, M. (1995). The evolution of draft lotteries in professional sports: Back to moral hazard? *Interfaces, 25*(6), 30-38.

Gerrard, B. (2005). A resource-utilization model of organizational efficiency in professional sports teams. *Journal of Sport Management. 19*(2), 143-169.

Given, Lisa M. (2008). *The Sage encyclopedia of qualitative research methods*. Los Angeles, CA: Sage Publications.

Gladden, M., & Mine, R. (1999). Examining the importance of brand equity in professional sport. *Sport Marketing Quarterly, 8*(1), 21-29.

Gladden M., Irwin, L., & Sutton, A. (2001) Managing North American major professional sport teams in the new millennium; A focus on building brand equity. *Journal of Sports Management, 15*, 297-317.

Gladden, J., & Funk, D. (2002). Developing an understanding of brand associations in team sport: Empirical evidence from consumers of professional sport. *Journal of Sport Management, 16*(1), 54-81.

Granot, E., Greene, H., & Brashear, T. G. (2010). Female consumers: Decision-making in brand-driven retail. *Journal of Business Research, 63,* 801-808.

Hammersley, M. (1987). Some notes on the terms 'validity' and 'reliability. *British Educational Research Journal, 13*(1), 73-81.

Hidalgo, B., & Goodman, M. (2013). Multivariate or multivariable regression? *American Journal of Public Health, 103*(1), 39-40.

Hockeydb.com. (2014b). *NHL & WHA draft history*. Retrieved from http://www.hockeydb. com/ihdb/draft/

Hockeydb. (2014a). *HPK Hameenlinna statistics and history [SM-liiga]*. Retrieved from http://www.hockeydb.com/stte/hpk-hameenlinna-5967.html

Holtbrugge, D., Friedmann, C., & Puck, J. (2010). Recruitment and retention in foreign firms in India: A resource-based view. *Human Resource Management, 49*(3), 439-455.

Huh, Y. E., Vosgerau, J., & Morewedge, C. K. (2014). Social defaults: Observed choices become choice defaults. *Journal of Consumer Research, 41*(3), 746-760.

Hwang, J, & Kandampully, J. (2012). The role of emotional aspects in younger consumer-brand relationships. *Journal of Product & Brand Management, 21*(2), 98-108.

IIHF.com. (2013). *Swede Ulf Sterner – The first European in the NHL*. Retrieved from http://www.iihf.com/iihf-home/the-iihf/100-year-anniversary/100-top-stories/story-70/

Isen, A. M., & Geva, N. (1987). The influence of positive affect on acceptable level of risk: The person with a large canoe has a large worry. *Organizational Behavior and Human Decision Processes, 39*, 145–154.

Jackson, M. (2008). *Social Economic Networks.* Princeton, NJ: Princeton University Press.

Johnston, C. (2012, June 1). 2012 NHL Draft: KHL at hot topic for Russians at NHL scouting combine. *Canadian Press.* Retrieved from: news.nationalpost.com/2012/06/01/khl-at-hot-topic-for-russinas-at-nhl-scouting-combine

Kapferer, J. (1992). *Strategic brand management: New approaches to creating and evaluating brand equity*. London, UK: Kogan.

Kapferer, J. N. (1997). *Strategic brand management: Creating and sustaining brand equity long term*, (2nd ed.). London, UK: Kogan Page.

Kapferer, J. N. (2008). *The new strategic brand management*, (4th ed.). London, UK: Kogan Page.

Kelly, P. (1991). *Advertising research and decision making, proceedings of the Australasian marketing educators' conference*. University of South Australia: Adelaide.

Kelly, J. (2013). *The Russian Factor*. Retrieved from http://lightning.nhl.com/club/news.htm?id=646671

Keller, K. L. (1993). Conceptualizing, measuring and managing customer-based brand equity. *Journal of Marketing, 57*(1), 1-22.

Keller, K. L. (1998). *Strategic brand management: Building, measuring, and managing brand equity*. Upper Saddle River, NJ: Prentice Hall.

Keller, K. L. (2001), *Building customer based brand equity: A blue print for creating strong brands*. Marketing Science Institute Working Paper Series, Report No. 01-107.

Keller, K. L. (2002). *Strategic brand management: Building, measuring, and management brand equity.* (2nd ed.). Pearson Education Ltd, in Tong, X. (2006). *Creation of brand equity in the Chinese clothing market*. A dissertation presented to the Faculty of the Graduate School, University of Missouri-Columbia.

Keller, K. L. (2003). *Strategic brand management: Building, measuring and managing brand equity*. Upper Saddle River, NJ: Prentice Hall.

Keller, K. (1998). *Strategic brand management: Building, measuring and managing brand equity.* Upper Saddle River, NJ: Prentice Hall.

Kennedy, R. (2013a). Gold for the price of silver. *The Hockey News, 67*(2), 1-50.

Kennedy, R. (2013b). *How the Russian Factor impacts the NHL draft.* Retrieved from http://www.thehockeynews.com/articles/50124-How-the-Russian-Factor-impacts-the-NHL-draft.html

Kennedy, P. (2003). *A Guide to Econometrics*. Cambridge, Massachusetts: MIT Press.

KHL. (2014). *About the KHL*. Retrieved from http://en.khl.ru/official/about/.

KHL. (2015). *Memorandum of Understanding 2014*. Retrieved from http://en.khl.ru/news/2014/08/07/227605.html.

Klein, H., & Truex, D. (1996). *Discourse analysis: An approach to the investigation of organizational emergence.* In B. Holmquist, P. Anderson, H. Klein, & R. Posner (Eds.), The semiotics of the work-place (pp. 227-268). New York, NY: Walter de Gruyter.

Klein, J. (2011). *Drafting is an art, not a science, but some teams could get quick help*. Retrieved from http://www.nytimes.com/2011/06/24/sports/hockey/nhl-teams-look-for-quick-help-in-2011-draft.html?_r=0.

Knapp, D. (2000). *The brand mindset*. New York, NY: McGraw-Hill.

Kolbe, R., & James, J. (2000). An identification and examination of influences that shape the creation of a professional team fan. *International Journal of Sports Marketing and Sponsorship, 2,* 23-37.

Kreiser, J. (2013). *A look at the 2013 NHL draft by the numbers*. Retrieved from http://www.nhl.com/ice/news.htm?id=675975.

Krishnan, S.H. (1996). Characteristics of memory associations: A consumer-based brand equity perspective. *International Journal of Research in Marketing, 13*, 389-405.

Krosnick, J. (1988). Attitude importance and attitude change. *Journal of Experimental Social Psychology, 24, 240-255.*

Kuvaas, B., & Kaufmann, G. (2004). Impact of mood, framing, and need for cognition and decision makers' recall and confidence. *Journal of Behavioral Decision Making, 17,* 59–74.

Lam, S., Kraus, F., & Ahearne, M. (2010). The diffusion of market orientation throughout the organization: A social learning theory perspective. *Journal of Marketing, 74*, 61-79. Lamberson, P. (2010). Social learning in social networks. *The B.E. Journal of Theoretical Economics, 10,* 1-31.

Lambert, R. (2012). *Oh good, it's pile on Russian hockey players time again*. Retrieved from https://ca.sports.yahoo.com/blogs/nhl-puck-daddy/oh-good-pile-russian-hockey-players-time-again-134402193.html.

Lambertson, P. (2010). Social learning in social networks. *The BE Journal of Theoretical Economics, 10*(1): Article 36.

Larin, I. (2010). *Mr. "Russian factor."* Retrieved from http://hockey.sport-express.ru/reviews/6483/.

Lavoie, M. (2003). The entry draft in the National Hockey League: Discrimination, style of play, and team location. *The American Journal of Economics and Sociology, 62*(2), 323-383.

Lee, B., Salmon, C., & Paek, H. (2013). The effects of information sources on consumer reactions to direct-to-consumer (DTC) prescription drug advertising: A consumer socialization approach. *Journal of Advertising, 36*, 107-119.

Lee, G. C., & Leh, F. C. (2011). Customer-based brand equity: A literature review. *Journal of Arts Science & Commerce, 33*(2), 33-42.

Levine, T. (2011). Two worlds collide: Salary arbitration for NHL players in the salary cap era. *Ohio State Journal on Dispute Resolution*, 26, 729-752.

Lloyd, S. (2002). Branding from the inside out. *Business Review Weekly, 24*(10), 64-66.

Longley, N. (2003). Measuring employer-based discrimination versus customer-based discrimination. The case of French Canadians in the National Hockey League. *American Journal of Economics and Sociology,62*(2), 365-381.

Lorek, L. (2013). *Billionare Mark Cuban likes to "party like a rock star" and invest in startups*. Retrieved from http://www.siliconhillsnews.com/2013/12/06/billionaire-mark-cuban-likes-to-party-like-a-rock-star-and-invest-in-startups/.

Low, G.S., & Lamb C.W. (2000). The measurement and dimensionality of brand associations. *Journal of Product & Brand Management*, *9*, 350–368.

MacMahon, T. (2010). *Cuban era has been anything but boring.* Retrieved from http://sports.espn.go.com/dallas/columns/story?columnist=macmahon_tim&id=4793301.

Malamud, S. (2012). *Russian stars took centre stage for first time in '92-93.* Retrieved from http://www.nhl.com/ice/news.htm?id=648048.

Mano, H. (1992), Judgements under distress: Assessing the role of unpleasantness and arousal in judgement formation. *Organizational Behavior and Human Decision Processes, 52*, 216–245.

Mano, H. (1994). Risk-taking, framing effect, and affect. *Organizational Behavior and Human Decision Processes, 57*, 38–58.

Marioti, J. (1999). *Smart things to know about brands and branding.* Milford, CT: Capstone USA.

Mauws, M. K., Mason, D. S., & Foster, W. M. (2003). Thinking strategically about professional sports. *European Sport Management Quarterly, 3,* 145-164.

McCann, M. A. (2006). It's not about the money: The role of preferences, cognitive biases, and heuristics among professional athletes. *Brooklyn Law Review, 71,* 1459 -1528.

McMahan, G. C., Virick, M., & Wright, P. M. (1999). Alternative theoretical perspectives for strategic human resource management revisited: Progress, problems, and prospects. In P. Wright, L. Dyer, J. Boudreau, & G. Milkovich (Eds.), *Research in personnel and human resource management* (pp. 99–122). Greenwich, CT: JAI Press.

Milne, G. & McDonald, M. (1999). *Sport Marketing.* Jones & Bartlett Learning, Burlington, Massachusetts.

Mirtle, J., & Mackinnon, M. (2014). *Russia's Kontinential Hockey League on the verge of financial ruin.* Retrieved from http://www.theglobeandmail.com/ sports/hockey/russias-kontinental-hockey-league-on-the-verge-of-financial-ruin/article22138117/

Moschis, G., & Churchill, G. (1978). Consumer socialization: A theoretical and empirical analysis. *Journal of Marketing Research, 15*, 25-55.

O'Rorke, K. (2006). Social learning theory & mass communication. *ABEA Journal, 25*, 72-74.

Nedungadi, P. (1990). Recall and consumer consideration sets: Influencing choice without altering brand evaluations. *Journal of Consumer Research, 17*(3), 263–276.

Neuman, W. L. (2003). *Social research methods: Qualitative and quantitative approaches* (5th ed.). Toronto, ON: Pearson education.

NHL.com. (2014a). *Stats. Players*. Retrieved from http://www.nhl.com/ice/playerstats.htm?season=20112012&gameType=2&team=&position=S&country=ITA&status=&viewNa me=summary

NHL.com (2014b). *Draft Search*. Players. Retrieved from http://www.nhl.com/ice/draftsearch. htm?year=1963&team=&position=&round=

NHL.com (2014c). *Draft History*. Retrieved from http://www.nhl.com/ice/draftsearch.htm?sort=overallPick.

NHL.com. (2014d). *NHL International*. Retrieved from http://www.nhl.com/ice/page.htm?id=26372.

NHL. (2014d). *NHL announces changes to Draft lottery format*. Retreived from http://www.nhl.com/ice/news.htm?id=728795.

NHL.com (2015a). *Stanley Cup Winners*. Retrieved from http://www.nhl.com/ice/page.htm?id=25426.

NHL.com (2015). *NHL online transmission policy*. Retrieved from http://www.nhl.com/ice/page.htm?id=26388.

NHL.com (2015f). *Capitals History Year-by-year*. Retrieved from http://capitals.nhl.com/club/page.htm?id=42508.

Park, C., Jaworski, B., & MacInnis, (1998). Strategic brand concept-image management, *Journal of Marketing, 50,* 135-145.

Park, C. W., MacInnis, D. J, Priester, J., Eisingerich, A. B., & Iacobucci D. (2010). Brand attachment and brand attitude strength: Conceptual and empirical differentiation of two critical brand equity drivers. *Journal of Marketing, 74*(6), 1-17.

Park, C-S., & Srinivasan, V. (1994). A survey based method for measuring and understanding brand equity and its extendability. *Journal of Marketing Research, 31,* 271-288.

Phan, K, N., & Ghantous, N. (2013). Managing brand associations to drive customers' trust and loyalty in Vietnamese banking. *International Journal of Bank Marketing, 31,* 456-480.

Piontkovskiy, R. (2012). *Russian factor*. Retrieved from http://sportlook.ru/hockey/nhl/ 20167.article

Plutchik, R. (1993) Emotions and the vicissitudes: Emotion and psychopathology. In Lewis, M. & Haviland, J.M., (eds.) *The Handbook of Emotion* (pp. 53-66). New York, NY: The Guilford Press.

Podnieks, A. (n. d.). *Hockey players are the toughest*. Retrieved from http://www.iih f.com/home-of-hockey/news/hockey-players-are-the-toughest.html

Purcell, J., & Kinnie, N. (2007). HRM and business performance. In P. Boxall, J. Purcell, & P. M. Wright (Eds.),*The Oxford handbook of human resource management* (pp. 533–551). NewYork: Oxford University Press.

Ranijbarian,, B., Abdollahi, S., & Khorsandnejad, A. (2011). The impact of brand equity on advertising effectiveness. *Interdisciplinary Journal of Contemporary Research in Business, 3*, 229-238.

Richardson, L. (2014). *Russia becoming viable option for players*. Retrieved from http://www.foxsports.com/nhl/story/Russia-becoming-viable-option-for-players.

Romaniuk, J., & Nenycz-Thiel, M. (2013). Behaviour brand loyalty and consumer brand associations. *Journal of Business Research, 66*, 67-72.

Romaniuk, J. (2003). Brand attributes – 'distribution outlets' in the mind. *Journal of Marketing Communications, 9*, 73–92.

Ross, S. (2006). A conceptual framework for understanding spectator-based brand equity. *Journal of Sport Management, 20*(1), 22-38.

Ross, J. W. Beath, C. M., & Quaadgras, A. (2013). You may not need big data after all. *Harvard Business Review, 91*, 1-144.

Ross, S., Bang, H., & Lee, S. (2007). Assessing brand associations for intercollegiate ice hockey. S*port Marketing Quarterly, 16*, 106-114.

Ross, S., James, J., & Vargas, P. (2006). Development of a scale to measure team brand associations in professional sport. *Journal of Sport Management, 20*, 260-279.

Ross, D. (1991). *The origins of American social science*. New York, NY: Cambridge UP.

Ross, S., Walsh, P., & Maxwell, H. (2009). The impact of team identification on ice hockey brand associations. *International Journal of Sport Management & Marketing, 6*, 196.

Rosner, S. & Shrosphire, K. (2011). *The business of sport*. Sudbury, Ontario: Jones & Barlett Publishers.

Senne, S. (2014). *The Economic theory of professional team sports: An analytical treatment*. Massachusets, Northampton: Edward Elgar Publishing.

Scherer, J. & Cantelon, H. (2013). 1972 WHA All-Stars vs. the Soviet national team: Franchise recognition and foreign diplomacy in the "Forgotten Series". *Journal of Canadian Studies, 47*(2), 29-59.

Schiffman, K. (2005). *Consumer Behaviour*, (8th ed.). Prentice Hall of India, New Delhi.

SHL. (2013). *History.* Retrieved from http://www.shl.se/om-shl/om-shl-ab

Simon, B. (2011). Salary caps in professional sports: Closing the Kovalchuk loophole in the National Hockey League player contracts. *Cardozo Arts and Entertainment Law Journal, 29*(2), 375-402.

Smart, D., & Wolfe, R. (2000). Examining sustainable competitive advantage in intercollegiate athletics: A resource-based view. *Journal of Sport Management, 14,* 133-153.

Stark, T. (2013). How swede it is: Borje Salming and the migration of Swedish ice hockey players to the NHL, 1957- 2012. *In: Constructing the Hockey Family: Home, Community, Bureaucracy, and Marketplace* (Conference Paper): Conference: "Putting It On Ice IV: Constructing the Hockey Family: Home, Community, Bureaucracy and Marketplace", Centre for the Study of Sport and Health (CSSH), Saint Mary's University, Halifax, Nova Scotia, 12-14 July 2012.

Sullivan, A., & Sheffrin, S. M. (2003). *Economics: Principles in action*. Upper Saddle River, New Jersey 07458: Pearson Prentice Hall.

Supriya, N., Vasudha, T., & Yadav, J. P. (2014). Social network in – an influencer of brand promotion. *International Journal of Innovative Research and Development, 3*(12), 411-415.

Sweeney, J. (2001). Consumer perceived value: the development of a multiple item scale. *Journal of Retailing, 77*(2), 203-220.

Szemberg, S. (2006). *IIHF study on Europeans going to North America*. Retrieved from http://www.iihf.com/fileadmin/user_upload/PDF/IIHF_Study.pdf

Szymaniec-Mlicka, K. (2014). Resource-based view in strategic management of public organizations – A review of the literature. *Management, 18*(2), 19-30.

Terentev, I. (2004). How much it cost to win KHL [Сколько стоит выиграть Чемпионат КХЛ]. Retrieved from http://m.forbes.ru/article.php?id=66890.

The Canadian Press. (2012). *The Russia Factor: NHL teams wary of prospects who could bolt for KHL.* Retrieved from http://www.thehockeynews.com/articles/47503-The-Russia-factor-NHL-teams-wary-of-prospects-who-could-bolt-for-KHL.html

Thompson C.J., Rindfleisch A., & Arsel, Z. (2006). Emotional branding and the strategic value of the doppelganger brand image. *Journal of Marketing, 70*, 50–64.

Thompson, T. (2010). *Tom Thompson's blog: How the North-American-European divide has narrowed.* Retrieved from http://www.thehockeynews.com/articles/36277-Tom-Thompsons-Blog-How-the-North-AmericanEuropean-divide-has-narrowed.html

Tingling, P., Masri, K., & Martell, M. (2011). Does order matter? An empirical analysis of NHL draft decisions. *Sport, Business and Management: An International Journal, 1*(2), 155-171.

Walla, P., Brenner, G., & Koller, M. (2011). Objective measures of emotions related to brand attitude: A new way to quantify emotion-related aspects relevant to marketing. *PloS ONE, 6*(11), 1-7.

Walsh, P., & Ross, S. (2010). Examining brand extension decision-making model for professional sport teams. *Sport Marketing Quarterly, 19,* 196-206.

Ward, S. (1974). Consumer socialization. *Journal of Consumer Research, 1*, 1-14.

Wescott, C. (2014). *Looking back at the Oilers 2013 Draft*. Retrieved from http://oilers.nhl.com/club/news.htm?id=722759.

Whyno, S. (2012). *Alex Ovechkin laugs off "rock star" criticism, while George McPhee agrees*. Retrieved from http://www.washingtontimes.com/news/2012/feb/16/alex-ovechkin-olie-kolzig-rock-star-george-mcphee/?page=all

Whyno, S. (2014). Is Connor McDavid better than Sidney Crosby? National Post. Retrieved from http://newsnationalpost.com/sports/nhl/top.

Wilke, W. (1986). *Consumer behavior*. New York, NY: Wiley.

Williams, J. (2014). *The basics of branding*. Retrieved from http://www.entrepreneur.com/ article/77408

Willis, J. (2013). *Valeri Nichuskin just did the Edmonton oilers a big favour*. Retrieved from http://oilersnation.com/2013/5/22/valeri-nichushkin-just-did-the-edmonton-oilers-a-big-favour.

Wright, P., Smart, D., & McMahan, G. (1995). Matches between human resources and strategy among NCAA basketball teams. *Academy of Management Journal, 38*(4), 1052-1074.

Wright, P., Dunford, B., & Snell, S. (2001). Human resources and the resource based view of the firm. *Journal of Management, 27*(6), 701-721.

Wu, F., Yeniyurt, S., Kim, D., & Cavusgil, S. (2006). Impact of information technology on supply chain capabilities and firm performance: A resource-based view. *Industrial Marketing Management, 35*(4), 493-504.

Wyshynski, G. (2012). *Alex Radulov, Andrei Kostitsyn violate Nashville Predators team rules; won't play in game 3*. Retrieved from https://ca.sports.yahoo.com/blogs/nhl-puck-daddy/alex-radulov-andrei-kostitsyn-violate-nashville-predators-team-164400745.html

Wyshynski, G. (2012). *Why Alex Radulov's return to Nashville Predators needs to happen*. Retrieved from https://ca.sports.yahoo.com/nhl/blog/puck_daddy/post /why-alex-radulovs-return-to-the-nashville-predators-needs-to-happen?urn=nhl,wp27263.

Yoo, B., & Donthu, N. (2001). Developing and validating multidimensional consumer-based brand equity scale. *Journal of Business Research, 52*(1), 1–14.

Young, H. P. (2009). Innovation diffusion in heterogeneous populations: Contagion, social influence, and social learning. *American Economic Review*, *99*(5), 1899-1924.

Белов, А. (2013). 90 самых больших зарплат в КХЛ. Извлечено из http://www.sports.ru /hockey/154502348.html

Ларин, И. (2010). Господин "русский фактор". Извлечено из http://hockey.sport-express.ru/reviews/6483/

Пионтковский, Р. (2012). Русский фактор. Извлечено из http://sportlook.ru/hockey/nhl/20167.article

Федеральная Миграционная Служба. (2014). История создания. Извлечено из http://www.fms.gov.ru/about/history/details/38013/full/

Федеральная Налоговая Служба. (2014). Налог на доходы физических лиц (НДФЛ). Извлечено из http://www.nalog.ru/rn77/taxation/taxes/ndfl/#t3

Table 1. Summary Statistics of the overall draft position and player nationality-specific status, considering all players

	Mean	Standard Deviation	Minimum	Maximum
ALL PLAYERS				
Overall draft Rank	124.36	77.36	1	293
Height	73.22	2.33	65	81
Weight	196.43	16.64	123	265
Penalty in Minutes	64.16	57.91	0	684
Goals per Game	0.24	0.19	0	1.05
Points per Game	0.6	0.41	0	2.68
Games Played	52.84	18.58	1	151
CANADIAN				
Overall draft Rank	116.6	75.68	1	292
Height	73.34	1.98	67	80
Weight	197.89	16.95	144	265
Penalty in Minutes	85.24	70.4	0	684
Goals per Game	0.28	0.21	0	1.03
Points per Game	0.71	0.44	0	2.68
Games Played	58.32	18.67	1	151
CZECH REPUBLIC				
Overall draft Rank	127.39	81.37	1	287
Height	73.28	1.82	69	78
Weight	197.51	16.92	161	258
Penalty in Minutes	58.95	40.62	2	203
Goals per Game	0.21	0.17	0	0.92
Points per Game	0.55	0.38	0	2.24
Games Played	56.39	14.94	3	90

FINLAND

	Mean	Standard Deviation	Minimum	Maximum
Overall draft Rank	148.26	78.84	3	293
Height	72.84	2	68	79
Weight	193.15	14.18	154	230
Penalty in Minutes	40.16	28.61	0	170
Goals per Game	0.18	0.14	0	0.68
Points per Game	0.45	0.3	0	2
Games Played	50.9	16.92	3	135

RUSSIAN

Overall draft Rank	126.53	79.76	1	292
Height	72.57	3.45	68	78
Weight	192.75	15.6	165	255
Penalty in Minutes	39.95	32.39	0	214
Goals per Game	0.19	0.18	0	1
Points per Game	0.45	0.35	0	2.29
Games Played	47.27	19.29	1	138

SLOVAKIA

Overall draft Rank	141.21	78.32	3	286
Height	73.47	2.16	68	81
Weight	198.32	19.03	163	255
Penalty in Minutes	60.17	45.42	0 2	248
Goals per Game	0.27	0.2	0	0.9
Points per Game	0.63	0.4	0	1.7
Games Played	57.82	15.19	3	91

SWEDEN

Overall draft Rank	136.92	76.38	2	290
Height	73.01	1.7	66	77
Weight	192.81	15.2	154	240
Penalty in Minutes	40.6	28.81	0	200
Goals per Game	0.17	0.12	0	0.56
Points per Game	0.41	0.25	0	1.56
Games Played	49.1	13.85	2	91

UNITED STATES

	Mean	Standard Deviation	Minimum	Maximum
Overall draft Rank	126.71	75.13	1	289
Height	73.29	2.05	65	80
Weight	196.95	16.26	152	265
Penalty in Minutes	50.34	43.08	0	449
Goals per Game	0.22	0.19	0	1.05
Points per Game	0.57	0.37	0	2.36
Games Played	43.59	17.23	1	139

RUSSIAN PLAYERS IN THE CHL

Overall draft Rank	91.67	73.8	1	241
Height	72.71	1.76	70	78
Weight	193.83	14.9	176	245
Penalty in Minutes	54.54	41.27	2	153
Goals per Game	0.27	0.2	0	0.69
Points per Game	0.66	0.47	0.03	1.7
Games Played	57.71	23.7	18	138

Table 2. Summary Statistics of the overall draft position and player nationality-specific status, considering only the CHL

ALL PLAYERS

	Mean	Standard Deviation	Minimum	Maximum
Overall draft Rank	106.53	73.33	1	292
Height	73.43	1.98	67	80
Weight	199.35	17.13	144	265
Penalty in Minutes	91.46	71.79	0	684
Goals per Game	0.28	0.21	0	1.05
Points per Game	0.73	0.45	0	2.68
Games Played	62.31	17.31	1	151

CANADIAN

Overall draft Rank	108.2	72.73	1	292
Height	73.42	1.99	67	80
Weight	199.23	17.01	144	265
Penalty in Minutes	94.36	73.41	0	684
Goals per Game	0.28	0.21	0	1.03
Points per Game	0.74	0.45	0	2.68
Games Played	62.5	17.05	1	151

CZECH REPUBLIC

Overall draft Rank	112.48	79.25	4	286
Height	73.54	2.01	69	78
Weight	197.91	16.85	168	232
Penalty in Minutes	70.25	47.39	4	199
Goals per Game	0.24	0.19	0	0.79
Points per Game	0.63	0.39	0	1.58
Games Played	59	14.35	3	80

FINLAND

Overall draft Rank	105.17	80.66	22	256
Height	74	1.79	71	76
Weight	198.83	15.48	177	219
Penalty in Minutes	54.67	49.4	10	141
Goals per Game	0.27	0.14	0.12	0.5
Points per Game	0.77	0.61	0.39	2
Games Played	67.17	42.76	4	135

RUSSIAN

	Mean	Standard Deviation	Minimum	Maximum
Overall draft Rank	91.67	73.8	1	241
Height	72.71	1.76	70	78
Weight	193.83	14.9	176	245
Penalty in Minutes	54.54	41.27	2	153
Goals per Game	0.27	0.2	0	0.69
Points per Game	0.66	0.47	0.03	1.7
Games Played	57.71	23.7	18	138

SLOVAKIA

Overall draft Rank	130.24	91.44	10	258
Height	73.47	2.45	70	79
Weight	205	24.4	170	255
Penalty in Minutes	78.24	59.77	10	248
Goals per Game	0.29	0.24	0	0.9
Points per Game	0.67	0.48	0.08	1.7
Games Played	60.47	13.41	30	83

SWEDEN

Overall draft Rank	147.33	60.89	52	221
Height	72.67	1.75	70	75
Weight	196.17	17.01	179	219
Penalty in Minutes	86.17	80.68	10	200
Goals per Game	0.15	0.14	0	0.33
Points per Game	0.43	0.31	0.03	0.83
Games Played	45	11.88	29	61

UNITED STATES

Overall draft Rank	91.22	73.34	1	281
Height	73.7	1.86	70	80
Weight	202.22	17.5	165	265
Penalty in Minutes	91.7	71.64	8	449
Goals per Game	0.28	0.22	0.01	1.05
Points per Game	0.72	0.43	0.13	2.36
Games Played	64.81	19.03	4	139

Table 3. Linear regression results of NHL draft pick rankings of all players sample conditioned on players' nationalities and control variables.

	Accounting for Nationality	Accounting for Performance	Accounting for Physique	Accounting for Leagues
Player Nationality Groups	(1)	(2)	(3)	(4)
Intercept (Canadian)	116.604*	173.795*	519.421*	490.982*
	(2.076)	(5.208)	(43.967)	(43.928)
Czech Republic	10.785	8.178	8.688	-1.728
	(5.750)	(5.821)	(5.654)	(6.275)
Finland	31.657*	23.444*	19.527*	5.053
	(6.699)	(6.755)	(6.570)	(7.004)
Russia	9.927*	-1.543	-5.515	-14.079*
	(4.959)	(5.139)	(5.016)	(6.075)
Slovakia	24.609*	27.462*	29.551*	16.14*
	(8.205)	(8.248)	(8.011)	(8.244)
Sweden	20.316*	9.773	5.82	-9.311
	(5.423)	(5.537)	(5.387)	(5.880)
United States	10.103*	-2.612	-0.844	-12.945*
	(3.683)	(3.835)	(3.730)	(4.184)
Other Nationalities	7.073	1.832	0.925	-9.032
	(6.257)	(6.355)	(6.173)	(6.490)
		Players' Performance		
Points per game	.	-16.934*	-26.651*	-24.99*
		(3.556)	(3.558)	(3.558)
Penalty in minutes	.	0.105*	0.199*	0.217*
		(0.027)	(0.027)	(0.027)
Games played	.	-0.909*	-0.836*	-0.698*
		(0.086)	(0.084)	(0.087)

			Players' Physical Characteristics		
Height	.	.	.	-2.119*	-1.994*
				(0.656)	(0.653)
Weight	.		.	-0.988*	-0.973*
				(0.094)	(0.093)
			Leagues		
Other Leagues	.	.	.		24.472*
					(3.839)
NCAA	.	.	.		20.341*
					(8.414)
European	.	.	.		17.668*
					(8.187)
All Russian Leagues	.	.	.		11.761
					(8.592)

Note. 1= nationality variable; 2 = performance-specific statistics variable; 3 = height and weight variables; 4 = league variables. * indicates statistical significance at 10% level. The standard errors are in parentheses. Adjusted R^2 is approximately 0.08. The number of observations are 3,159 in the first column and 3,075 in the second, third and fourth columns/specifications.

Table 4. Linear regression results of NHL draft pick rankings of CHL players sample conditioned on players' nationalities and control variables.

	Accounting for Nationality	Accounting for Performance	Accounting for Physique
Player Nationality Groups	(1)	(2)	(3)
Intercept (Canadian)	108.2 (2.245)	114.774 (8.306)	540.095 (85.609)
Czech Republic	4.278 (11.013)	4.944 (11.244)	4.311 (10.892)
Finland	-3.033 (29.937)	2.477 (29.848)	7.795 (28.925)
Russia	-16.533 (15.094)	-13.746 (15.086)	-19.197 (14.630)
Slovakia	22.035 (17.877)	22.301 (17.813)	27.952 (17.277)
Sweden	39.134 (29.937)	33.512 (29.909)	23.713 (29.003)
United States	-16.985 (7.908)	-16.289 (8.093)	-12.441 (7.850)
Other Nationalities	-28.866 (12.926)	-27.885 (13.090)	-26.128 (12.680)
		Players' Performance	
Points per Game	.	-5.222 (4.729)	-18.298 (4.878)
Penalty in Minutes	.	0.135 (0.031)	0.213 (0.031)
Games Played	.	-0.23 (0.127)	-0.296 (0.124)

	Players' Physical Characteristics		
Height	.	.	-3.23 (1.317)
Weight	.	.	-0.912 (0.151)

Note. 1= nationality variable; 2 = performance-specific statistics variable; 3 = height and weight variables; * indicates statistical significance at 10% level. The standard errors are in parentheses. Adjusted R^2 is approximately 0.04. The number of observations is 1,286 in the first column and 1,249 in the second and third columns/specifications.

Table 5. Linear regression results of NHL draft pick rankings of all players sample (with incorporated Russian players in the CHL variable) conditioned on players' nationalities and control variables.

	Accounting for Nationality	Accounting for Performance	Accounting for Physique	Accounting for Leagues
Player Nationality Groups	(1)	(2)	(3)	(4)
Intercept	116.604	173.314*	517.966*	490.805*
	(2.074)	(5.216)	(43.968)	(43.934)
Czech Republic	10.785	8.227	8.738	-1.527
	(5.746)	(5.819)	(5.653)	(6.289)
Finland	31.657*	23.552*	19.638*	5.329
	(6.694)	(6.754)	(6.569)	(7.028)
Russia	13.049*	0.712	-3.347	-12.853
	(5.135)	(5.341)	(5.213)	(6.574)
Slovakia	24.609*	27.486*	29.573*	16.366*
	(8.199)	(8.246)	(8.010)	(8.258)
Sweden	20.316*	9.898	5.945	-9.026
	(5.419)	(5.537)	(5.386)	(5.909)
United States	10.103*	-2.494	-0.729	-12.715*
	(3.680)	(3.835)	(3.730)	(4.211)
Russian in CHL	-37.986*	-24.833	-23.75	-7.908
	(16.387)	(16.050)	(15.589)	(16.200)
		Players' Performance		
Points per game		-16.716*	-26.426*	-24.952*
		(3.558)	(3.560)	(3.559)
Penalty in minutes	.	0.105*	0.199*	0.217*
		(0.027)	(0.027)	(0.027)
Games played	.	-0.904*	-0.831*	-0.699*
		(0.086)	(0.084)	(0.087)

			Players' Physical Characteristics	
Height	.	.	-2.103*	-1.987*
			(0.656)	(0.653)
Weight	.	.	-0.989*	-0.974*
			(0.094)	(0.093)
			Leagues	
Other Leagues	.	.	.	24.074*
				(3.925)
NCAA	.	.	.	20.062*
				(8.434)
European	.	.	.	17.326*
				(8.218)
All Russian Leagues	.	.	.	10.58
				(8.927)

Note. 1= nationality variable; 2 = performance-specific statistics variable; 3 = height and weight variables; 4 = league variables. * indicates statistical significance at 10% level. The standard errors are in parentheses. Adjusted R^2 is approximately 0.08. The number of observations are 3,159 in the first column and 3,075 in the second, third and fourth columns/specifications.